

INDEX OF AUTHORS' NAMES.

ABSTRACTS, 1925.

Anonymous.

protein and oil content of soya beans and the iodine number of soya bean oil, i, 346.

relation of concentration of the soil solution to nitric nitrogen in soils containing large quantities of available nitrogen, and effect on plant growth, i, 347.

wild plum (*Ximenia americana*, Linn.), i, 764.

A.

Aarflot, H. See H. Goldschmidt, and Erich Müller.

Aarnio, B., effect of temperature on the hygroscopicity of hydrogels of aluminium oxide, ferric oxide, and silica, ii, 1157.

Abakumovski, L. See S. S. Nametkin.

Abderhalden, E., synthetic achievements of the animal organism, i, 726. insulin, i, 753.

constitution of proteins, i, 848, 1341.

effect of growth of yeast on galactose on the fermentability of the latter by the former, i, 1362.

[degradation of proteins by hypobromite], i, 1475.

Abderhalden, E., and E. Gellhorn, effect of amino-acids in producing an increase in the action of adrenaline, i, 332.

Abderhalden, E., E. Klarmann, and E. Komm, structure of the protein molecule, i, 174.

Abderhalden, E., and E. Komm, structure of proteins, i, 175, 320, 1475.

oxidation of polypeptides and of 2:5-diketopiperazines, i, 848.

structure of the protein molecule, i, 848.

Abderhalden, E., and H. Paffrath, hormonal action of choline on intestinal movements. III. Formation of choline from phosphatides. IV. Degradation of phosphatides by intestinal juice. V. Synthesis of choline esters by an enzyme of the duodenum, i, 1016.

Abderhalden, E., and E. Rossner, compounds of amino-acids with piperazines, i, 975.

Abderhalden, E., and E. Schwab, structure of proteins; reduction of dipeptides and methods of isolation of reduction products given by proteins, i, 991.

methylation of tyrosine, i, 1423.

Abderhalden, E., and H. Sickel, isolation from caseinogen of an amino-acid of the indole group with the composition $C_{11}H_{14}O_3N_2$, i, 846.

Abel, E., and D. Harasty, formation of nitrous acid from nitric acid and nitric oxide, ii, 139.

Abel, J. J., and E. M. K. Geiling [with G. Alles, and A. Raymond], insulin. I. Is insulin an unstable sulphur compound? i, 1218.

Abelin, J., specific dynamic action of foodstuffs. IV. Mechanism of specific dynamic action, i, 332.

Abelin, J. See also K. Miyakaki.

Abelles, N., and H. Popper, distribution of iodine in the hydrolytic products of the thyroid gland, i, 1489.

Abelsdorff, R. See A. Schönberg.

Abraham, A., and P. Kahn, significance of ions in muscular function. V. Influence of ions on the lactacidogen changes during ageing, i, 728.

Abraham, H., and R. Planiol, magnetic ferric oxide, ii, 587.

Abrams, A. J. J. See T. L. Davis.

Abramson, H. A., determination of phenolsulphonaphthalein in the urine of jaundice, i, 329.

Abt, G., carbon of peptones, source of energy for *Bacillus diphtherie*, i, 1014.

Abt, G., and G. Loiseau, causes of pH variation in cultures of *Bacillus diphtherie*, i, 479.

Ackermann, D., F. Holtz, and H. Reinwein, occurrence of methyladenine, dimethylhistamine, guanidine, betaine, and eledonine in *Geodia gigas*, i, 720.

Ackerson, C. W., M. J. Blish, and F. E. Mussehl, phosphorus, calcium, and alkaline reserve of blood sera of normal and rachitic chicks, i, 609.

- Adair, G. S.**, hæmoglobin system. I. Classification of reactions, i, 849.
 hæmoglobin system. II. Theory of reactions which do not obey the law of constant proportions, i, 849.
 hæmoglobin system. III. Equilibrium of hæmoglobin and carbon dioxide, i, 850.
 hæmoglobin system. IV. Reproduction of carbon dioxide curves of blood with an artificial mixture of hæmoglobin and sodium bicarbonate, i, 850.
 hæmoglobin system. V. Relation of hæmoglobin and bases, i, 850.
 hæmoglobin system. VI. Oxygen dissociation curve of hæmoglobin, i, 851.
 direct method of measuring the osmotic pressure of hæmoglobin, ii, 965.
- Adam, G.** See *R. Stollé*.
- Adam, H. R.**, electrometric titration in the determination of ferrous and ferric iron in magnetites, ii, 717.
- Adam, N. K.**, structure of surface films on water, ii, 195.
 evaporation of water from clean and contaminated surfaces, ii, 658.
 [cause of surface tension], ii, 1046.
- Adam, N. K.**, and *J. W. W. Dyer*, synthesis of arachidic acid and some long-chain compounds, i, 354.
 molecular structure of thin films. VI., ii, 32.
- Adam, N. K.**, and *G. Jessop*, explanation of "interaction" phenomena between solutions, and molecular significance of surface tension, ii, 772.
 angles of contact and polarity of solid surfaces, ii, 962.
- Adams, E. Q.**, luminous efficiency of chemi-luminescence reactions, ii, 1117.
- Adams, E. W.**, and *H. Adkins*, catalysis in acetal formation, i, 784.
- Adams, E. W.** See also *H. Adkins*.
- Adams, H. S.** See *W. D. Harkins*.
- Adams, R.**, and *J. R. Johnson*, trypanocidal compounds, i, 319.
- Adams, R.**, *E. H. Volwiler*, and *R. L. Jenkins*, di-*sec*-butylaminoalkyl esters of aromatic acids, i, 399.
- Adams, R.** See also *C. L. Butler, jun.*, *W. H. Carothers*, *H. Heckel*, *R. A. Jacobsen*, *J. W. Kern*, *I. A. Koten*, *K. Ogden*, *J. S. Pierce*, and *C. W. Rassweiler*.
- Addis, T.**, determination of urea in blood and urine, i, 1113.
- Adickes, F.**, α -ketopimelic acid and α -ketosuberic acid and their behaviour towards concentrated sulphuric acid, i, 230.
 addition of alkali alkoxide to esters, i, 1378.
- Adinolfi, E.**, influence of X-rays on the crystallisation of bismuth, ii, 485.
- Adkins, H.**, and *E. W. Adams*, relation of structure, affinity, and reactivity in acetal formation, i, 785.
- Adkins, H.**, and *P. P. Perkins*, dehydration of alcohols over alumina, i, 626.
- Adkins, H.**, and *R. N. Simington*, 1-phenyltetrahydro-1:4-oxazine (4 phenylmorpholine) and a new tri-phenylmethane dye, i, 986.
- Adkins, H.** See also *E. W. Adams*, *F. Bischoff*, *W. C. Child*, *L. B. Haines*, and *W. A. Lazier*.
- Adler, A.**, fluorescent oxidation products of bilirubin and their importance as sources of error in the routine detection of urobilin, i, 328.
- Adler, E.** See *S. Isaac*.
- Adler, M.** See *H. Weil*.
- Adlersberg, D.**, and *O. Porges*, detection of bilirubin and urobilin in the fæces with trichloroacetic acid, i, 98.
- Adolf, M.**, physical chemistry of the globulins. VI. Alteration of globulin by heat, ii, 199.
 heat changes of the globulins, ii, 520.
- Adolf, M.**, and *W. Pauli*, electrolyte-free, water-soluble proteins. II. Effect of carbon dioxide, ii, 289.
- Adolph, E. F.**, metabolism of ammonium salts and of urea in man, i, 1353.
 diffusion of water through collodion membranes between solutions of mixed electrolytes, ii, 859.
- Adova, (Mile.) A. N.**, enzymes of *Utricularia vulgaris*. II. Relative amounts of proteolytic enzymes in the bladders and in the stem, i, 202.
- Adova, (Mile.) A. N.** See also *I. A. Smorodincev*.
- Aeschlimann, J. A.**, asymmetric compounds of quinquivalent arsenic, i, 706.
- Aeschlimann, J. A.**, *N. D. Lees*, *N. P. McClelland*, and *G. N. Nicklin*, organic compounds of arsenic. II. Derivatives of the arsenic analogue of carbazole, i, 319.
- Afanasieva, M.** See *S. Kostytshev*.
- Aggazzotti, A.**, changes in the total, amino-, and ammoniacal nitrogen of hens' eggs during incubation, i, 457.
- Aguirreche, F. D.**, existence of liquid racemates, ii, 1142.

- Ahlberg, R.**, α -ethyl- α' -thiodilactic acid, i, 885.
- Ahlgren, G.**, deamination of aspartic acid by hydrolysis, i, 235.
insulin and the oxidation of dextrose, i, 482.
- Ahmad, N.**, absorption and scattering of γ -rays, ii, 923.
- Ainslie, D. S.**, variations in the structure of the lithium red line 6708 Å., ii, 450.
- Airoidi, A.** See **G. Scagliarini**, and **A. Skrabal**.
- Akashi, K.** See **B. Kubota**.
- Aktien-Gesellschaft für Anilin-Fabrikation**, preparation of diarylthiocarbamides, i, 133.
preparation of azine derivatives, i, 304.
preparation of 4-allyloxyphenylmalonic acid and its esters, i, 402.
preparation of safranin dyes, i, 591.
preparation of keto derivatives of the thiazine series, i, 596.
azo derivatives of β -naphthol containing *p*-substituted auxochromes, i, 988.
alkyl ethers of monohydric phenols and their halogen substitution products, i, 1145.
dyes, i, 1330.
- Aktien-Gesellschaft Lignose**, additive products of lead oxide with lead compounds of acidic polynitro compounds, i, 1145.
- Albert, A.**, organic compounds of mercury, i, 844.
- Albritton, E. C.**, effect of interpancreatic administration of dextrose on the blood-sugar curve, i, 463.
- Alekseevski, E. V.**, adsorption and heterogeneous catalysis. I., ii, 858.
- Alexander, J.**, simple kinetic principle of colloidal processes, ii, 779.
- Alexander, L. M.**, new determination of the constant *N* of Avogadro, ii, 364.
- Ali, B.**, surface tension of water, benzene, methyl alcohol, and ethyl alcohol, ii, 763.
- Ali, B.** See also **P. E. Lauder**.
- Alimchandani, R. L.** See **A. N. Meldrum**.
- Alinari, E.** See **F. C. Palazzo**.
- Allaire, H.** See **M. Javillier**.
- Allan, F. N., B. R. Dickson, and J. Markowitz**, relationship of phosphate and carbohydrate metabolism. II. Effect of adrenaline and phloridzin on the excretion of phosphate, i, 726.
- Allan, James, and R. Robinson**, an accessible derivative of chromonol, i, 148.
- Allan, John.** See **E. F. Armstrong**.
- Allen, C. F. H.**, reactions of δ -ketonic nitriles, i, 963.
- Allen, H. S.**, static model for helium, ii, 349.
- Allen, R. P.** See **W. D. Bancroft**.
- Alles, G.** See **J. J. Abel**.
- Alles, G. A.** See **G. Piness**.
- Allin, K. D.** See **V. J. Harding**.
- Allison, F. E.**, nitrification of phosphorus nitride, i, 218.
- Allison, F. E., J. J. Skinner, and F. R. Reid**, toxicity studies with dicyanodiamide on plants, i, 1030.
- Allison, S. K.**, reflection of X-rays by barytes, ii, 18.
reported $K\beta$ line in the X-ray spectra of molybdenum and palladium, ii, 724.
- Allison, S. K., and (Miss) A. H. Armstrong**, experimental determination of the relative intensities of some of the molybdenum and copper *K* lines and the tungsten *L* lines, ii, 1015.
- Allison, S. K., and W. Duane**, scattered radiation due to X-rays from molybdenum and tungsten, ii, 250.
experimental determination of the critical excitation frequency for the production of fluorescent X-radiation, ii, 930.
wave-lengths of scattered X-rays, ii, 1034.
- Allmand, A. J.**, Einstein's "photochemical equivalent law," ii, 1074.
mechanism of the ozone-chlorine reaction, ii, 1079.
- Allmand, A. J., and A. N. Campbell**, electro-deposition of manganese. II., ii, 305.
- Allmand, A. J., P. W. Cunliffe, and R. E. W. Maddison**, photodecomposition of chlorine water and of aqueous hypochlorous acid solutions, ii, 572.
- Allmand, A. J., and V. S. Puri**, effect of superposed alternating current on the anodic solution of gold in hydrochloric acid, ii, 302.
effect of superposed alternating current on the polarisable primary cell zinc-sulphuric acid-carbon. I. Low frequency current, ii, 303.
- Allpress, C. F., and W. Maw**, carbonates of ethylene glycol and related compounds, i, 4.
- Aloy, J., and A. Valdigué**, reactions produced by sunlight in the presence of uranium compounds, ii, 1081.
- Alphen, J. van**, action of ketens on hydrazine derivatives, i, 80.
action of keten on hydroxybenzoic acids and their esters, i, 1149.

- Alquier, *J.* See *L. Randoïn.*
- Alsberg, *C. L.* See *D. B. Dill.*
- Alsterberg, *G.*, determination of molecular oxygen in aqueous solution in the presence of nitrous acid, ii, 1198.
- Altchidjian, *Y.* See *H. Gault.*
- Alterthum, *H.*, kinetics of macro-crystal formation in tungsten by union of small crystals, ii, 136.
- Alterthum, *H.*, *W. Fehse*, and *M. Pirani*, melting point of carbon, ii, 759.
- Alterthum, *H.*, and *F. Koref*, heterogeneous equilibria between tungsten and oxygen, and tungsten and water vapour at high temperatures, ii, 1159.
- Althammer, *W.*, reduction of magnesium sulphate, ii, 145.
- Alvarado, *A. M.* See *J. N. Pearce.*
- Amadori, *M.*, hydrated mesotartaric acid, i, 511.
- Amagat, (*Mlle.*). See (*Mme.*) *P. Ramart.*
- Ambard, *L.*, laws of unimolecular reactions (fermentations; catalytic reactions), ii, 1170.
- Ambard, *L.*, and *Vaucher*, elimination of amylase by the kidneys, i, 609.
- Amberger, *K.*, and *J. Bauch*, glycerides of cacao fats, i, 114.
- Ambler, *H. R.*, absorption of carbon monoxide. I. Critical comparison of some methods employed in gas analysis, ii, 436.
- Ambler, *H. R.* See also *T. C. Sutton.*
- Ambler, *J. A.*, *D. F. J. Lynch*, and *H. L. Haller*, naphthalenesulphonic acids. VI. Sulphonation of naphthalene in the vapour phase, i, 126.
- Ambrus, *B.* See *H. Thoms.*
- Ames, *J. W.*, and *C. J. Schollenberger*, availability of phosphorus in calcareous and non-calcareous soils, i, 1524.
- Ames, *J. W.*, and *R. H. Simon*, soil potassium as affected by fertiliser treatment and cropping, i, 1523.
- Amuat, *A. M.* See *M. Battagay.*
- Anargyros, *A.*, colloidal oxide of manganese, ii, 1152.
- Anderegg, *F. O.*, and *W. N. Herr*, formation of active hydrogen in the creepage corona discharge, ii, 1180.
- Andersen, *B.* See *O. Collenberg.*
- Anderson, *A. K.*, plant diseases. VI. *Fusarium lini*, Bolley, i, 1522.
- Anderson, *G. H.*, calcium and phosphorus content of blood in normal and rachitic children. II. Phosphorus, i, 188.
- Anderson, *G. H.*, and *S. Graham*, etiology of tetany in children, i, 330.
- Anderson, *J. A.* See *H. N. Holmes.*
- Anderson, *L. A. P.*, *A. Howard*, and *J. L. Simonsen*, lathyrism. I, i, 1000.
- Anderson, *L. C.* See *M. Gomborg.*
- Anderson, *M. S.*, heat of wetting of soil colloids, i, 219.
- Anderson, *W. T., jun.*, and *F. W. Robinson*, oxalic acid-uranyl sulphate ultra-violet radiometer, ii, 415.
- Ando, *K.* See *Y. Osaka.*
- Andratschke, *I.* See *Z. Stary.*
- André, *E.*, determination of the acetyl value of fats, ii, 446.
- André, *E.*, and *H. Canal*, marine-animal oils; squalene and spinacene, i, 1373.
- André, *E.*, and (*Mlle.*) *T. François*, additive power of iodine with regard to ethylenic compounds, i, 356.
- André, *E.*, and *F. Guichard*, American palm tree fats; murumuru butter, i, 1124.
- André, *G.*, and *E. Demoussy*, selective absorption of potassium by plants, i, 758.
- André, *H.*, conductance by metallic colloids and its electro-technical applications, ii, 976.
- Andreanelli, *M.* See *G. Rossi.*
- Andreoly, *G.* See *A. Maubert.*
- Andrew, *J. H.*, and *K. Hay*, colloidal separations in alloys, ii, 954.
- Andrew, *J. H.*, and *A. J. K. Honeyman*, specific volume of steels, ii, 278.
- Andrews, *D. H.*, solubility relations of isomeric organic compounds. III. Mutual solubility of the three dinitrobenzenes, ii, 1052.
- Andrews, *D. H.*, and *J. Johnston*, application of the ideal solubility curve to the interpretation of equilibrium diagrams in metal systems, ii, 206.
- Andrews, *D. H.*, *G. T. Kohman*, and *J. Johnston*, solubility relations of isomeric organic compounds. II. Determination of freezing temperatures of binary mixtures, ii, 852.
- Andrews, *D. H.* See also *G. T. Kohman.*
- Andrews, *J. C.*, optical activity of cystine; oxidation of cystine, i, 1389.
- Andrews, *J. W.*, heat of sublimation of carbon dioxide, ii, 758.
- Andrews, *J. W.* See also *W. H. Rodebush.*
- Andrews, *M. R.*, and *S. Dushman*, diffusion of carbon through tungsten and tungsten carbide, ii, 500.
- Andrews, *S.*, phosphate metabolism in fatigued mammalian muscle, i, 729.

- Andrjuschtschenko, A.** See *V. Ipatiev*.
- Andrussov, L.**, differential methods and apparatus for the determination of dissociation isochores; thermal dissociation of cadmium carbonate, ii, 538.
thermal dissociation of calcium carbonate, and the differential method. II., ii, 803.
- Angelescu, B. N.**, volumetric determination of manganese, ii, 330.
- Angelescu, E.**, and *J. Mircescu*, adsorption of iodine by starch, ii, 1149.
- Angelescu, E.**, and *D. Motzoc*, equilibrium between two liquid phases in the system, aniline-acetic acid-water, ii, 854.
- Angeli, A.** See *D. Bigiavi*.
- Angerer, E. von**, and *Alex. Müller*, spectroscopic determination of the electron affinity of the halogens, ii, 1025.
- Angern, O.** See *P. Pfeiffer*.
- Anschütz, R.**, *H. Aschenberg*, *H. Kuckertz*, *F. Krone*, *Riepenkröger*, and *C. Zerbe*, reciprocal changes of the isomeric *O*- and *N*-acylsalicylamides, and the constitution of acylsalicylimide salts, i, 666.
- Anschütz, R.**, and *K. Riepenkröger*, is orthoboric acid, H_3BO_3 , volatile in steam? ii, 1084.
- Anschütz, R.**, and *G. Schultz*, constitution of the two isomeric "dehydrothio-*m*-xylydines," i, 315.
- Anschütz, R.**, *W. Stoltzenhoff*, and *F. Voeller*, two mixed anhydromonohydroxybenzoic acids and their transformation into xanthonecarboxylic acids, i, 1273.
- Anslow, G. A.**, total ionisation produced in air by electrons of various energies, ii, 343, 459.
- Anson, M. L.**, and *A. E. Mirsky*, carbon monoxide dissociation curve of hæmochromogen, i, 456.
combination of nitric oxide with hæmoglobin, i, 1475.
hæmochromogen and the relation of protein to the properties of the hæmoglobin molecule, i, 1475.
[non-protein component of hæmoglobin], i, 1476.
helioerubin and its relation to hæmoglobin, i, 1476.
- Anthony, J. D. C.**, and *L. J. Hudleston*, freezing points of hydrofluoric acid, ii, 644.
- Antonoff, B.** See *A. Schönberg*.
- Antonov, G. N.**, molecular interaction in the liquid state, ii, 865.
- Aoyama, S.**, reaction products of ruthenium tetroxide and hydrochloric acid, ii, 816.
- Applebey, M. P.**, and *P. G. Davies*, physical properties of aniline and its aqueous solutions, ii, 948.
osmotic pressure by the solubility method in concentrated solutions, ii, 964.
- Appleton, E. V.**, *K. G. Emeléus*, and *M. A. F. Barnett*, experiments with an α -particle counter, ii, 10.
- Araki, S.**, equilibria in the systems, ammonium chromate-ammonium sulphate-water, and ammonium chromate-potassium chromate-water at 25°, ii, 786.
- Arbuckle, H. B.**, and *O. J. Thies, jun.*, variation of protein content of maize. III., i, 1518.
- Archbold, H. K.**, physiology of apples. II. Nitrogen content of stored apples, i, 345.
physiology of apples. III. Determination of dry weight and the amount of cell-wall material in apples, i, 345.
- Archibald, E. H.**, and *L. T. Hallett*, solubilities in water of rubidium and cesium chloroplatinates, ii, 652.
- Archibald, W.** See *C. P. Stewart*.
- Ardagh, E. G. R.**, and *G. M. Broughall*, separation of nickel and copper from iron, ii, 603.
- Arens, H.**, photographic reversal, ii, 313.
- Arkadiev, W.**, magnetic spectra of iron and nickel wires at wave-lengths of a centimetre, ii, 82.
electric and magnetic spectroscopy, ii, 750.
- Arkel, A. E. van**, crystal structure and physical properties, ii, 749.
so-called lead suboxide, ii, 815.
- Arkel, A. E. van**, and *J. H. de Boer*, separation of zirconium from other metals, including hafnium, by fractional distillation, ii, 243.
electronegative hydrogen, ii, 734.
additive properties of boiling points. I. and II., ii, 758, 1141.
influence of hydrogen and substituted halogens on the properties of organic compounds, especially on their boiling points, ii, 758.
preparation of pure metallic titanium, zirconium, hafnium, and thorium, ii, 1193.
- Arkel, A. E. van.** See also *J. H. de Boer*.
- Arisz, W. H.**, and *J. Schweizer*, tannin of *Hevea brasiliensis*, i, 873

- Arland, *A.*, acidity of plant sap and methods for its determination, i, 213.
- Armbruster, *G.* See *P. Pfeiffer*.
- Armendt, *B. F.* See *L. J. Bircher*.
- Armes, *H. P.* See *M. A. Parker*.
- Armit, *J. W.*, and *R. Robinson*, polynuclear heterocyclic aromatic types. II. Some anhydronium bases, i, 1170.
- Armstrong, (*Miss*) *A. H.*, *W. Duane*, and *R. J. Havighurst*, reflection of X-rays by alkali halide crystals, ii, 1033.
- Armstrong, (*Miss*) *A. H.* See also *S. K. Allison*.
- Armstrong, *E. F.*, *John Allan*, and *C. W. Moore*, fatty acid constituents of some natural fats. I. Oils from the coconut, i, 353.
fatty acid constituents of some natural fats. II. Palm-kernel oil, i, 504.
- Armstrong, *E. F.*, and *T. P. Hilditch*, constitution of natural unsaturated fatty acids. I. New method of ascertaining the position of the ethylenic linking in acids of the oleic series, i, 355.
constitution of natural unsaturated fatty acids. II. Acids present in a South Georgia whale oil, i, 778.
catalytic actions at solid surfaces. XII. Particles of a catalyst which participate in chemical change, ii, 562.
catalytic actions at solid surfaces. XIII. Some factors controlling selective hydrogenation: terpene derivatives, ii, 563.
- Armstrong, *H. E.*, enzyme action. XXIV. Oxydase effect and the phenomena of oxidation in general: carbon monoxide, i, 1009.
- Arnaud. See *E. Carrière*.
- Arnd, *O.* See *F. Zetzsche*.
- Arnd, *T.*, determination and nature of the acidity of moor soils, i, 221.
influence of humic acids on bacterial life in moor soils, and a method of determining soil acidity, i, 490.
- Arndt, *F.* [with *W. Flemming*, *E. Scholz*, *V. Löwensohn*, *S. Källner*, and *B. Eistert*], chromone and 1-thiochromone series, i, 1309.
- Arndt, *F.*, *P. Nachtwey*, and *J. Pusch*, pyrone problem; 1-thiopyrones and 1-thiopyranones, i, 1307.
conversion of 4-thiopyrones into dipyrrole; dithiopyrrole, i, 1312.
- Arndt, *F.*, and *J. Pusch*, possible existence of indigoid dyes with a hydrogenated six-membered ring, i, 1312.
- Arndt, *F.*, and *J. Pusch* [with *R. Schwarz*], halochromism of hydrogenated pyrone and thiopyrone systems, i, 1304.
- Arndt, *F.*, *E. Scholz*, and *P. Nachtwey*, dipyrroles and the relationships of the linkings in pyrone ring systems, i, 57.
- Arndt, *K.*, and *G. Ploetz*, electrical conductivity of fused sodium hydroxide, ii, 127.
- Arnold, *R.*, and *E. Gley*, iodine content of goat's thyroid, i, 325.
- Arnoldi, *W.*, and *J. A. Collazo*, sugar and fat in (human) blood, i, 179.
- Arnoldi, *W.* See also *F. Kraus*.
- Arnulf, *A.*, ionisation of potassium vapour under the influence of visible light, ii, 460.
- Arrhenius, *O.*, lime requirement of soils. II. Soil reaction and the growth of the higher plants, i, 490.
lime requirement of soils. III. Influence of soil reaction on biological and physico-chemical soil factors, i, 766.
influence of neutral salts on soil reaction, i, 1525.
- Arrhenius, *S.*, kinetics of cellulose production, ii, 560.
- Arstal, *A.* See *S. Bodfors*.
- Arzichovski, *V.*, temperature of swelling of starch granules, ii, 967.
- Arzichovski, *V.*, and *O. Scheljakin*, effect of concentrated solutions of poisons on plant cells, i, 1227.
- Asahara, *G.*, application of X-ray diffraction to the determination of the transformation temperature of thallium, ii, 483.
effect of allotropical change on the grain growth in thallium, ii, 637.
transformation temperature of thallium, ii, 645.
- Aschan, *O.* [with *I. F. M. Krohn*], two homologues of diprene, i, 49.
- Aschenberg, *H.* See *R. Anschütz*.
- Ascherl, *A.* See *Erich Schmidt*.
- Ashdown, *A. A.* See *T. L. Davis*, and *J. F. Norris*.
- Asher, *L.*, and *K. Takahashi*, physiology of the glands. LXX. Experimental hypoglycemia and the carbohydrate metabolism of the brain, i, 331.
- Ashley, *M. F.* See *L. B. Loeb*.
- Ashworth, *J. R.*, simple characteristic relationships among the ferromagnetics, ii, 944.
- Asmas, *R.* See *Erich Schmidt*.
- Asmus, *H.*, volumetric determination of iron by Jellinek and Vinogradov's method, ii, 1206.
- Asselin. See *L. Randoin*.
- Astengo, *R.* See *L. Francesconi*.
- Asterblum, (*Mlle.*) *M.*, permanent modifications in fluorescent liquids, ii, 1026.

- Aston, F. W.**, rarity of the inert gases on the earth, ii, 18.
mass-spectra of chemical elements.
VI. Accelerated anode rays continued, ii, 618.
photographic plates for detection of mass rays, ii, 706.
isotopes of mercury, ii, 833.
- Astruc, A.**, and **E. Canals**, rotating dialyser, ii, 896.
- Astruc, A.**, and **Radet**, determination of ethyl alcohol, ii, 443.
- Aten, A. H. W.**, electrical heating apparatus in the laboratory, ii, 588.
- Aten, A. H. W.**, and **M. F. van Patten**, electrodeposition of silver-cadmium alloys, ii, 1166.
- Athanasian, G.**, sensitiveness of actinometers with mercury electrodes, ii, 415.
electrochemical actinometers, ii, 1067.
- Athanasian, I. A.**, chemical examination of basic eruptive rocks, ii, 1207.
- Atkin, W. R.**, and **G. W. Douglas**, titration curve of gelatin, ii, 113.
- Atkins, W. R. G.**, hydrogen-ion concentration of sea-water in its relation to photosynthetic changes.
III., i, 199.
filtration and other errors in the determination of the hydrogen-ion concentration of soils, i, 220.
- Atsuki, K.**, nitrates of oxycelluloses, hydrocelluloses, and cellulose hydrates, i, 120.
cellulose acetate, i, 642.
dehydration of cellulose nitrate by alcohol, i, 1044.
swelling and dispersion of cellulose nitrate in ethyl alcohol, i, 1044.
- Atynski, K.** See **L. Moser**.
- Aubel, E.**, and **J. Salabartan**, mechanism of hydrogen production from dextrose by *Bacillus coli communis*, i, 747.
- Aubel, E.**, and **R. Wurmser**, utilisation of energy liberated by oxidations, i, 480.
- Audubert, R.**, photovoltaic phenomena, ii, 43.
photo-electric properties of silver halides and the mechanism of the formation of the photographic latent image, ii, 56.
- Audubert, R.**, and (*Mlle.*) **M. Quintin**, mechanism of the adsorption of ions, ii, 384.
- Audubert, R.**, and **H. Rabaté**, method of determination of the granular distribution of disperse systems, ii, 775.
- Auerbach, F.**, and **E. Smolezyk**, electro-metric titration of acids, ii, 118.
- Auerbach, F.**, and **H. Weber**, lead salts of some fruit acids, i, 1130.
- Auerbach, R.**, technique and theory of measuring the diffusion of coloured substances, ii, 28.
method of viscosimetry with variable velocity of flow; velocity function of the viscosity of disperse systems.
III., ii, 589.
- Auerspergrová, M.** See **J. Šterba-Boehm**.
- Aufrecht**, determination of uric acid in urine, i, 187.
melanin and its detection in urine, i, 1350.
- Auger, P.**, secondary β -rays produced in a gas by X-rays, ii, 175.
experimental study of directions of emission of photo-electrons, ii, 730.
- Auger, P.**, and **F. Perrin**, direction of emission of photo-electrons, ii, 618.
- Auger, V.**, determination of antimony, ii, 604.
new type of alkali borate; pentaborates, ii, 697.
- Auger, V.**, and **T. Karantassiss**, stannic iodide complexes, ii, 814.
complex salts of stannous iodide with rubidium and caesium iodides, ii, 1182.
- Auger, V.**, **L. Lafontaine**, and **C. Caspar**, salts of cupferron, ii, 328.
- Augustson, A. M.** See **E. Hägglund**.
- Auméras, M.**, degree of hydration of calcium oxalate, ii, 895.
- Austin, P. C.**, lithium are spectrum for polarimetric use, ii, 995.
- Austin, P. C.**, and **J. R. Park**, rotatory dispersion of derivatives of tartaric acid. II. Acetyl derivatives, ii, 1028.
- Autenrieth, W.**, and **E. Bölli**, *p*-oxo-diazphospholes and experiments with trimethylenedisulphonyl chloride, i, 1468.
- Autenrieth, W.**, and **H. Hefner**, experiments with thiocarbonyl chloride, i, 1376.
- Autenrieth, W.**, and **A. Meyer**, determination of bismuth in organs, blood, and excreta, i, 182.
- Autenrieth, W.**, and **W. Meyer**, thiophosphoryl chlorides of the general formulæ SP(OR)Cl_2 and $\text{SP(OR)}_2\text{Cl}$ and derivatives of pentabasic thiol-phosphoric acid, $(\text{HO})_4\text{P}\cdot\text{SH}$, i, 807.
compounds containing phosphorus and *p*-thiodiazphospholes, i, 989.
- Auwers, K. von**, 1-methyl- Δ^1 -dihydronaphthalene, i, 241.
[formation and spectrochemical behaviour of hydrogenated naphthalene derivatives], i, 815.
alleged dimeric anils of alkylglutaric acids, i, 892.

- Auwers, K. von**, constitution of labile and stable acylindazoles, i, 1460.
- Auwers, K. von, T. Bahr, and E. Frese**, tetrahydrobenzoxazoles, i, 308.
cyanocyclohexanones and their transformation products, i, 310.
- Auwers, K. von, and W. Daniel**, isomeric relationships in the pyrazole series. V. *N*-Alkyl and *N*-acyl derivatives of methylpyrazoles, i, 1180.
- Auwers, K. von, and E. Frese**, formation of indazoles from the hydrazones of 2:6-dinitrobenzaldehyde, i, 1101.
- Auwers, K. von, and O. Jordan**, Beckmann transformation. II., i, 264.
- Auwers, K. von, and W. Kohlhaas**, spectrochemistry of thiophen derivatives, i, 150.
- Auwers, K. von, and R. Kraul**, constitution of acridine, i, 578.
spectrochemistry and structure of polynuclear aromatic hydrocarbons, i, 900.
spectrochemistry of compounds containing nitrogen, ii, 847.
- Auwers, K. von, and A. Kreuder**, influence of constitution on the transformation of phenylhydrazones of unsaturated compounds into pyrazolines. II., i, 1454.
- Auwers, K. von, M. Lechner, and H. Bundesmann**, Beckmann transformation. III., i, 265.
- Auwers, K. von, and A. Lohr**, alkylated and halogenated indazoles, i, 73.
- Auwers, K. von, and H. Mauss**, isomeric relationships in the pyrazole series. IV. Alkyl derivatives of 3-phenylpyrazol-5-one, and alkyl and acyl derivatives of 5(3)-chloro-3(5)-phenylpyrazole, i, 1178.
- Auwers, K. von, and K. Möller**, formation and spectrochemical behaviour of hydrogenated naphthalene derivatives, i, 402.
- Auwers, K. von, and F. Niemeyer**, isomeric relationships in the pyrazole series. III. 5-Chloro-3-methylpyrazole and its derivatives, i, 1176.
- Auwers, K. von, and B. Ottens**, derivatives of phenylpropionaldehyde and α -bromocinnamaldehyde, i, 1428.
formation and transformation of pyrazolecarboxylamides, i, 1459.
- Auwers, K. von, and W. Pfuhl**, tenacity of organic radicals with respect to nitrogen, i, 1100.
- Auwers, K. von, L. von Sass, and W. Wittekindt**, tetrahydroindazoles, i, 1181.
- Auwers, K. von, and W. Schmidt**, isomeric relationships in the pyrazole series. II. 3(5)-Phenylpyrazole and its derivatives, i, 585.
- Avasare, M. D.** See **K. G. Naik**.
- Avery, O. T.** See **J. M. Neill**.
- Avogadro, L., and G. Tavola**, dioximes. XXV., i, 1040.
- Awerbuch, A.** See **M. Centnerszwer**.
- Awschalom, M.**, rapid separation of sulphur precipitates in analytical reactions, ii, 823.
- Ayyar, P. R.** See **S. N. Iyer, and J. J. Sudborough**.

B.

- Baas-Becking, L. G. M.**, sulphur bacteria, i, 1217.
- Baborovsky, J.**, hydration of ions, ii, 1151.
- Bach**, separation of small quantities of calcium from large amounts of magnesium, ii, 825.
- Bach, A.**, active hydrogen, ii, 885.
- Bach, A., W. Engelhardt, and A. Samysslav**, rôle of accompanying substances in immunisation with invertase preparations, i, 1506.
- Bach, D.**, toxicity and nutritive value of ammonium acetate for the lower fungi, i, 216.
- Bacharach, A. L.**, basal vitamin-B-free diet of Drummond and Watson, i, 1220.
- Bachmann, F. M.** See **J. C. Walker**.
- Bachmann, W., and C. Brieger**, heat of wetting of oils and metal and its relationship to lubricating power, ii, 510.
- Back, E.**, Zeeman effect of neon, ii, 341.
Zeeman effects contrary to the rule for multiplets of the first stage, ii, 917.
- Backeberg, O. G.**, alkyl hypochlorites, i, 775.
- Backenköhler, F.** See **F. Scheibe**.
- Backer, H. J., and W. G. Burgers**, resolution of chlorosulphoacetic acid into its optically active components, i, 359.
optically active components of chlorosulphoacetic acid, i, 631.
- Backer, H. J., and H. W. Mook**, optical resolution of bromosulphoacetic acid, i, 632.
- Backer, J.** See **O. Collenberg**.
- Backes, P.** See **P. Pfeiffer**.
- Baddiley, J., W. W. Tatum, and British Dyestuffs Corporation, Ltd.**, dyes of the anthraquinone series, i, 414.
- Baddiley, J.** See also **British Dyestuffs Corporation, Ltd.**

- Badger, W. L.** See *A. R. Carr*.
- Badische Anilin- & Soda-Fabrik**, preparation of nitrogenous anthraquinone derivatives, i, 414.
- perylene dyes, i, 1290.
- Badoche, M.** See *C. Moureu*.
- Badstübner, W.** See *R. Stollé*.
- Bäcklin, E.**, doublet $K\alpha_{1,2}$ of the lighter elements and the dependence of the X-ray spectra on chemical combination, ii, 914.
- Bäcklin, E., M. Siegbahn, and R. Thoræus**, semi-optical lines in the X-ray spectra, ii, 457, 614.
- Bäckström, H. L. J.**, heat of dissociation of calcium carbonate and the entropy of carbon dioxide, ii, 1140.
- thermodynamic properties of calcite and aragonite, ii, 1162.
- Baekeland, L. H., and H. L. Bender**, phenol resins and resinoids, i, 689.
- Bär, R.**, abnormal low-voltage arcs in mercury vapour, argon, and helium, ii, 254.
- Baermann, L.** See *W. Traube*.
- Baerwald, H.**, electron reflection in gases, ii, 731.
- Bahl, D. C.** See *S. S. Bhatnagar*.
- Bahlke, W. H., and R. E. Wilson**, boiling-point correction chart for normal liquids with special application to petroleum products, ii, 73.
- temperature of vapour above boiling salt solutions, ii, 514.
- Bahr, T.** See *K. von Auwers*.
- Bahrt, G. M.** See *J. C. Russell*.
- Bailar, J. C., jun.** See *H. B. van Valkenburgh*.
- Bailey, C. R.**, condensed ternary system, phenol-water-salicylic acid, ii, 1064.
- Bailey, D. F. H.** See *K. C. Bailey*.
- Bailey, G. L.** See *R. Genders*.
- Bailey, J. R.** See *R. C. Goodwin, and C. A. Nau*.
- Bailey, K. C.**, synthesis of carbamide from carbon dioxide and ammonia under atmospheric pressure. I, i, 121.
- reaction between ferric chloride and potassium thiocyanate, ii, 422.
- identity of "alumen" in Pliny's natural history, ii, 591.
- Bailey, K. C., and D. F. H. Bailey**, colorimetric determination of thiocyanates and cyanates, ii, 447.
- Bailey, K. C., and J. D. Kidd**, freezing points of solutions containing ferric chloride and potassium thiocyanate, ii, 422.
- Bailey, V. A.**, attachment of electrons to gas molecules, ii, 1019.
- Bailly, O.**, application of the Denigès-Grimbert-Leclère reaction to the characterisation and determination of adrenaline in suprarenal powders, ii, 248.
- Bain, J. W.**, double salts formed by sodium and potassium carbonates, ii, 577.
- Bain, J. W., and G. F. Kay**, effect of heat on cellulose, i, 639.
- Baker, H. B., and (Miss) M. Carlton**, effect of ultra-violet light on dried hydrogen and oxygen, ii, 1180.
- Baker, J. W.**, ring-chain tautomerism. XIII. Three-carbon ring-chain tautomerism in a bridged ring system, i, 916.
- formation and stability of *spiro*-compounds. XII. Further evidence for the multiplanar configuration of the cycloheptane ring, i, 1277.
- Baker, S., and W. N. Haworth**, synthesis of derivatives of γ -arabinose, i, 365.
- Baker, T. T.**, leptology of the silver bromide grain, ii, 574.
- Baker, T. T., and L. F. Davidson**, changes in the ultra-violet absorption of gelatin, ii, 838.
- Baker, W., and A. Lapworth**, reduction products of arylidenecyanoacetic acids, i, 30.
- synthesis of substituted succinic acids containing aromatic residues, i, 670.
- Baker, W., and R. Robinson**, β -piperonylpropionitrile and some derived substances, i, 925.
- synthetical experiments in the *iso*-flavone group. I, i, 1299.
- Bakker, G.**, thermodynamics of the capillary layer, ii, 789.
- Bakr, A. M., and J. W. McBain**, sorption of toluene and acetic acid and their mixtures by carbon, ii, 193.
- Bakunin, M., and F. Giordani**, constitution of picrotoxin, i, 691.
- Balandin, A.**, contraction constants and affinity of solid compounds, ii, 637.
- Balareff, D.**, rôle of water in reactions in the solid state. IV. and V., ii, 409, 893.
- solubility and size of grain, ii, 853.
- Balaš, F.** See *J. Frejka*.
- Balassa, L.** See *G. Sachs*.
- Baldet, F.**, spectrum of carbon monoxide at very low pressures, and its relation to the spectrum of the tails of comets, ii, 180.
- third negative group of carbon; spectrum of the tails of comets; extension on the red side and structure of the bands, ii, 469.

- Baldet, F.**, influence of pressure on carbon band spectra in discharge tubes; consequences for the theory of comets, ii, 469.
band spectra associated with carbon, ii, 927.
red cyanogen spectrum in Daniel's comet (1907), ii, 928.
- Baldoni, A.**, synthesis of salicylic acid in diseased conditions, i, 330.
- Bálint, M.**, constancy of the hydrogen-ion concentration of living bacteria, i, 338.
iodometric micro-determination of sodium, ii, 158.
- Bálint, M.**, and **P. Rusczyński**, micro-determination of organic substances, i, 323.
- Balks, R.**, formation and decomposition of humus in the soil, i, 1031.
- Ballard, M. P.** See **R. E. Oesper**.
- Ballin, O.** See **Erich Müller**.
- Balls, A. K.**, and **J. B. Brown**, yeast metabolism. I., i, 476.
- Balls, A. K.** See also **J. B. Brown**.
- Ballye, A. E.** See **J. B. Speakman**.
- Baltadschieva, M.** See **A. Skrabal**.
- Balthazard, V.**, spectrometric determination of the "poisoning coefficient" in carbon monoxide poisoning, i, 196.
- Baly, E. C. C.**, and **E. S. Semmens**, selective photochemical action of polarised light. I. Hydrolysis of starch, i, 12.
- Baly, E. C. C.** See also **R. W. Riding**.
- Balz, P.** See **L. Wöhler**.
- Balzerkiewicz, H.** See **A. Schaarschmidt**.
- Bamann, E.** See **R. Willstätter**.
- Bamberger, E.**, some data from dissertations and other literature, i, 142.
action of hydrohalogen acids (and sulphuric acid) on arylhydroxylamines, i, 388.
arylazides. V., i, 843.
- Bancroft, W. D.**, molecular weight and solution, ii, 858.
- Bancroft, W. D.**, and **R. P. Allen**, metallic lustre. II., ii, 658.
- Bancroft, W. D.**, and **C. Gurchot**, permeability of membranes, ii, 110.
- Bandopadhyay, P. C.** See **P. Ray**.
- Banerji, B. N.**, electric discharge in gases at low pressure, ii, 921.
- Banerji, D.**, scattering of light in mixtures of air and carbon dioxide, ii, 1118.
- Bangham, D. H.**, and **F. P. Burt**, sorption of ammonia and carbon dioxide by glass, ii, 284.
sorption of nitrous oxide and sulphur dioxide by glass, ii, 657.
- Bangham, D. H.**, and **W. Sever**, experimental investigation of the dynamical equation of the process of gas sorption, ii, 507.
- Bangham, D. H.**, and **J. Stafford**, velocity of oxidation of the metals and the structure of coloured oxide films, ii, 138.
"activated" graphite as a sorbent of oxygen, ii, 655.
- Bangler, B.** See **L. Schmid**.
- Banks, M. A. L.** See **R. Lessing**.
- Banu, Negresco**, and **Heresco**, cholesterol in normal infants, i, 452.
- Bappert, R.** See **K. Hess**.
- Barat, C.** See **H. K. Sen**.
- Barbaudy, J.**, boiling points of mixtures of water, benzene, and ethyl alcohol under a pressure of 760 mm. of mercury, ii, 766.
- Barbieri, O.** See **G. Plancher**.
- Barbour, H. G.**, **C. B. Ridout**, and **D. Claydon**, chemo-therapeutic properties of a substance with a chain of four arsenic atoms, i, 733.
- Bardach, B.**, abnormal crystal-formation and its relation to oxalate precipitation and to red blood-corpuscles, i, 1114.
- Bardet, J.**, and **C. Toussaint**, separation of cerium [hafnium] and its arc spectrum, ii, 826.
- Bardwell, D. C.** See **S. C. Lind**.
- Barendrecht, H. P.**, invertase and the second mode of action of hydrogen ions, i, 203.
- Bargellini, G.**, β -phenylcoumarins, i, 1299.
3:4-diphenylcoumarins, i, 1442.
- Bargellini, G.**, and **P. Leone**, glucosides of chalkones [phenyl styryl ketones], i, 1283.
- Barger, G.**, and **F. J. Eaton**, blue adsorption compounds of iodine. IV., i, 44.
- Barger, G.** See also **E. Stedman**.
- Barkan, G.**, studies of iron. I. Action of digestive ferments on the iron of haemoglobin, i, 1482.
- Barkas, W. W.**, distribution of particles in colloidal suspensions, ii, 289.
- Barkenbus, C.**, and **J. B. Holtzclaw**, new substituted benzyl esters, i, 1148.
- Barker, E. F.**, and **O. S. Duffendack**, ionisation of hydrogen chloride by electron impacts, ii, 1017.
- Barkla, C. G.**, J -phenomenon in X-rays, ii, 456.
- Barkla, C. G.**, and **S. R. Khastgir**, J -transformation of scattered X-rays, ii, 456.

- Barkla, C. G.**, and **G. I. Mackenzie**, coherence of superposed X-radiations, ii, 614.
- Barkus, O.** See **S. Morgulis**.
- Barnard, L.** See **J. Oliver**.
- Barnett, E. de B.**, action of nitrogen dioxide on anthracene derivatives, i, 1258.
2-chloro-3:5-dinitrobenzamide, i, 1288.
- Barnett, E. de B.**, and **J. W. Cook**, mechanism of substitution reactions in the aromatic nucleus, i, 123.
reduction of the bromoanthraquinones, i, 940.
- Barnett, E. de B.**, **J. W. Cook**, and **M. A. Matthews**, mechanism of substitution reactions in the aromatic nucleus. II., III., IV., and V., i, 648, 900, 1140, 1398.
1:5-dichloroanthrone, i, 818.
- Barnett, E. de B.**, and **M. A. Matthews**, mechanism of substitution reactions in the aromatic nucleus. I., i, 18.
1:2-benzanthraquinone (Sirius-yellow G), i, 820.
- Barnett, M. A. F.** See **E. V. Appleton**.
- Barnette, R. M.**, **D. J. Hissink**, and **J. van der Spek**, determination of the hydrogen-ion concentration of the soil, i, 220.
- Barratt, S.**, absorption spectra of mixed metallic vapours, ii, 19.
absorption spectra of mixed metallic vapours. II. Spectra of volatile compounds of magnesium and the alkali metals, ii, 927.
- Barratt, T.**, and **R. M. Winter**, thermal conductivity of wires and rods, ii, 756.
- Barrenscheen, H.** See **E. Fromm**.
- Barrenscheen, H. K.**, and **O. Weltmann**, fluorescent oxidation products of bilirubin and their importance as sources of error in tests for urobilin, i, 187.
- Barrett, F. L.** See **H. F. Coward**.
- Barrett, W. R.** See **W. R. Orndorff**.
- Barriga Villalba, A. M.**, yajeine, a new alkaloid, i, 828.
- Bartels, H.**, distribution of transition probabilities in the atoms of alkali metals, ii, 624.
- Bartens, K.** See **K. Fries**.
- Bartholomé, W.** See **Erich Schmidt**.
- Barthoux, J.**, new mineral: dusserite, ii, 235.
pyrites of Majdan-Pek (Serbia), ii, 429.
- Barton, H. A.**, negative and doubly-charged positive ions in argon, ii, 6.
single and double ionisation of argon by electron impacts, ii, 459.
negative ion emission from oxide-coated filaments, ii, 1020.
- Barton, V. P.**, and **F. L. Hunt**, molecular dimensions of "celluloid," ii, 21.
- Bartlett, R. S.**, photo-resistance effect for metals at low temperatures, ii, 943.
- Bartunek, R.** See **E. Heuser**.
- Barus, C.**, density and diffusion measurement by interferometry, ii, 25.
diffusion of hydrogen into air, measured by the interferometer U-gauge, ii, 27.
- Baruttschisky, I.** See **A. Rosenheim**.
- Bary, P.**, physico-chemical composition of glasses, ii, 380.
- Basini, A.** See **G. Rossi**.
- Bassanoff, D.** See **H. Scheibler**.
- Bastings, L.**, decay of radium-*E*, ii, 9.
decay constant of radium emanation, ii, 621.
- Basu, K.** See **J. C. Ghosh**.
- Basu, S. K.** See **H. Freundlich**.
- Batchelor, H. W.** See **W. M. Gibbs**.
- Batscha, B.**, thoron, ii, 177.
phosphorescent powers of fluorescein, ii, 181.
- Batschinski, A.**, molecular fields and their volumes, ii, 932.
- Battegay, M.**, and **A. M. Amuat**, acyl-hydrazidoanthraquinones, i, 169.
- Battegay, M.**, and **J. Véchet**, piaselezonium salts, i, 1466.
- Batuecas, T.**, compressibility of methyl ether and molecular weight of the gas, ii, 16.
compressibilities of gases at 0° and below one atmosphere, and the divergence from Avogadro's law. III. Ethylene, nitrous oxide, nitric oxide, and methyl ether, ii, 497.
revision of weight of normal litre of methyl chloride vapour, ii, 753.
revision of the compressibility of methyl chloride and the molecular weight of this gas, ii, 753.
- Batuecas, T.**, **G. Maverick**, and **C. Schlatter**, compressibilities of gases at 0° and below one atmosphere, and the divergence from Avogadro's law. IV., ii, 497.
- Bauch, J.** See **K. Amberger**.
- Baude, P.** See **M. Javillier**.
- Baudisch, O.**, formation of organic from inorganic substances under the influence of light, ii, 1082.
- Baudisch, O.**, and **D. Davidson**, oxidation of thymine; 4:5-dihydroxythymine, i, 1100.
- Baudisch, O.**, and **L. A. Welo**, catalysis; active and inactive iron oxide, ii, 881.
ageing of ferrous carbonate and ferrous hydroxide; ageing of natural mineral waters, ii, 992.

- Baudisch, O.** See also *D. Davidson*, and *L. A. Welo*.
- Bauer, C.** See *A. Haller*.
- Bauer, K. H.**, and *G. Kutscher*, oxidation of unsaturated fatty acids with hydrogen peroxide and perbenzoic acid, i, 630.
- Bauer, O.**, and *O. Vollenbruck*, hardness of copper-tin alloys, ii, 104.
- Bauer, W.** See *E. Philippi*.
- Baukovac, O.** See *R. Kremann*.
- Bauman, L.**, *M. Chudnoff*, and *G. M. Mackenzie*, attempted separation of the active constituent of ragweed pollen, i, 1028.
- Baumann, A.** See *H. Wieland*.
- Baumberger, J. P.**, hydrogen electrode technique, ii, 236.
- Baumecker, W.**, influence of narcotics on the rate of sinking of blood corpuscles, i, 321.
- Baumeister, L.** See *G. Grube*.
- Baumgarten, P.**, action of halogen on the enolates of glutacondialdehyde and synthesis of 3-halogenopyridines, i, 1381.
- Baumgarten, P.** See also *W. Traube*.
- Baur, E.**, is the solution of cellulose in ammoniacal copper oxide a peptisation? ii, 662.
- light-sensitiveness of potassium ferrocyanide, ii, 884.
- photolysis of methylene-blue, sensitised by zinc oxide, ii, 1082.
- measurement of single-phase boundary potentials, ii, 1164.
- Baur, H.**, and *R. Kuhn*, insulin and its action. III. Lactic acid content of muscle in death due to insulin or to starvation, i, 482.
- Baur, H.** See also *R. Kuhn*.
- Baur, K.** See *C. Bülow*.
- Bausch, H.** See *A. Binz*.
- Baxter, G. P.**, and *H. W. Starkweather*, density of oxygen, ii, 188.
- density and atomic weight of helium, ii, 1045.
- Baxter, W. P.** See *A. A. Noyes*.
- Bayen**, spark spectra of tungsten and mercury in the extreme ultra-violet, ii, 168.
- Bayer, O.** See *J. von Braun*.
- Bayerle, V.**, dropping mercury cathode. V. Deposition of arsenic, antimony, and bismuth, ii, 675.
- Bayerle, V.**, and *M. Tamele*, preparation of pure hydrogen, ii, 233.
- Bayle, E.**, and *R. Fabre*, urinary elimination of isoquinoline alkaloids, in particular of hydrastine, i, 609.
- fluorescence as a criterion of purity in organic compounds, ii, 604.
- Bayle, E.**, *R. Fabre*, and *H. George*, fluorescence and its applications, ii, 260.
- Bayley, C. H.** See *M. C. Boswell*.
- Bayley, P. L.**, coloration of the alkali halides by X-rays, ii, 21.
- Baylis, J. R.**, influence of curvature on air-saturation of water and its relation to the air-binding of filters, ii, 980.
- Beaber, N. J.** See *H. Gilman*.
- Beal, G. D.** See *E. O. North*.
- Beals, C. S.**, arc spectrum of palladium, its Zeeman effect, and spectral type, ii, 1015.
- Beams, J. W.** See *F. L. Brown*.
- Beans, H. T.**, and *L. P. Hammett*, hydrogen electrode, ii, 694.
- Beard, H. G.** See *H. H. Hodgson*.
- Bearden, J. A.** See *A. H. Compton*.
- Beauchamp, L.** See *L. Lematte*.
- Becherer, F.**, preparation of optically active primary alcohols, i, 664.
- Bechert, K.**, structure of the nickel spectrum. II., ii, 1014.
- Bechert, K.**, and *L. A. Sommer*, arc spectrum of nickel, ii, 913.
- Bechhold, H.**, electro-ultrafiltration, ii, 1158.
- Bechhold, H.**, and *A. Rosenberg*, electro-ultrafiltration of gelatin and glue, ii, 668.
- Bechhold, H.**, and *V. Szidon*, ultrafiltration of non-aqueous solutions, ii, 529.
- Beck, A.** See *H. Biltz*.
- Beck, W.**, sensitisation and protection by lipoids, ii, 527.
- Beckenkamp, J.**, fine structure of the free benzene molecule, ii, 90.
- relationship between the fine structures of the two crystalline forms of carbon and zinc sulphide, ii, 271.
- electrostatic and electrodynamic significance of electrons in the crystallisation of the elements of the fourth periodic group, ii, 358.
- Becker, A.**, electron emission excited by α -rays, ii, 8.
- cathode rays, ii, 251.
- electron emission of metals. I., ii, 616.
- photo-electric action of total radiation of a solid body, ii, 1107.
- Becker, B.** See *L. Schmid*.
- Becker, E.**, and *H. Hilberg*, passivity of metals, ii, 405.
- Becker, G.**, dispersion of electrical double refraction of some organic liquids, ii, 755.
- effect of pressure on the infra-red absorption of hydrogen chloride, ii, 1114.

- Becker, H. G.**, mechanism of absorption of moderately soluble gases in water, ii, 106.
- Becker, J.** See *B. Helferich*.
- Becker, J. A.**, soft X-rays and secondary electrons, ii, 8.
Compton and Duane effects, ii, 17.
- Becker, J. A., E. C. Watson, W. R. Smythe, R. B. Brode, and L. M. Mott-Smith**, reality of the Compton effect, ii, 1128.
- Becker, J. E.** See *E. V. McCollum*.
- Becker, M. L.**, equilibrium at high temperatures in the iron-carbon-silicon systems, ii, 973.
- Becker, R.**, simple kinetic derivation of the ionisation and vapour pressure equations, ii, 342.
- Becker, R.** See also *W. Hieber*.
- Becker, W.** See *G. Linck*.
- Beckett, E. G., J. Thomas, and Scottish Dyes, Ltd.**, anthraquinone derivatives, i, 685.
- Bedell, H. L.** See *T. J. Thompson*.
- Bedos, P.**, a new racemic menthone and the two corresponding menthols, i, 1078.
- Bedos, P.** See also *M. Godchot*.
- Bédowé, J.**, acyclic acetals and their azetropic properties, i, 513.
- Bedr-Chan, S.**, analysis of alvite, ii, 710.
- Bedreag, C. G.**, physical structure of the elements, ii, 363.
- Beduwé, (Mlle.) J.** See *A. Verley*.
- Bedworth, R. E.** See *N. B. Pilling*.
- Beekley, J. S., and H. S. Taylor**, adsorption of silver salts by silver iodide, ii, 855.
- Beeman, N.** See *W. D. Harkins*.
- Beeny, H.**, electrochemical corrosion tests on iron and steel, ii, 1068.
- Beeson, J. W., and J. R. Partington**, explosion of ammonia with carbon monoxide and oxygen, ii, 682.
- Behner, K.**, arc spectrum of titanium from 7496 to 2273 Å., ii, 1100.
- Behr, H.** See *P. Pfeiffer*.
- Behrend, R.**, history of the synthesis of uric acid, i, 441.
- Behrens, K.** See *O. Mumm*.
- Behrens, W. U., and C. Drucker**, method for the determination of the specific heat of metals, ii, 24.
- Beisler, W. H., and J. L. Bray**, preparation and properties of 1-benzamido-2-methylantraquinone, i, 1288.
- Belaiew, N. T.**, inner crystalline structure of ferrite and cementite in pearlite, ii, 738.
- Belfanti, S.**, hæmoleucolysin of the pancreas and its relation to Delezenne and Fournear's lysocithin, i, 326.
- Bell, F. K.**, infra-red absorption spectra of organic derivatives of ammonia.
I. Aniline and some mono- and di-alkylanilines, ii, 928.
- Bell, G. E., and F. Y. Poynton**, dielectric constants of some liquids and their variation with temperature. I., ii, 477.
- Bell, H.**, the CuH molecule and its band spectrum, ii, 470.
- Bell, H. C., and C. S. Gibson**, $\beta\beta'$ -dichloro- and $\beta\beta'$ -dibromo-diethyl selenides and their simple halogen derivatives, i, 1126.
- Bell, R. W.**, effect of heat on solubility of calcium and phosphorus compounds in milk, i, 998.
- Bellenot, H.** See *A. Berthoud*.
- Beller, H.** See *H. Fischer*.
- Beloglazov, K. F.**, a property of van't Hoff's plane diagram, ii, 788.
- Beloglazov, K. F.** See also *N. S. Karnakov*.
- Beltz, L., and E. Kaufmann**, interferometric studies. I. Determination of the refractive index and protein content of blood-serum by the interferometer, i, 1200.
- Benatt, A., and M. Händel**, effect of potassium and calcium on the acidity of urine, i, 722.
- Bencowitz, I., and H. T. Hotchkiss**, preparation of conductivity water, ii, 817.
- Bencowitz, I., and R. R. Renshaw**, basis for the physiological activity of certain -onium compounds; the mobilities of the -onium ions. I. Sulphonium ions, ii, 872.
- Benda, O.** See *R. Kremann*.
- Bender, H. L.** See *L. H. Baekeland*.
- Benedicks, C.**, hardness of manganese steel, ii, 183.
- Benedict, F. G., and E. L. Fox**, oxycalorimeter, ii, 998.
- Benedict, S. R.**, determination of blood-sugar, i, 994.
determination of uric acid in the blood, i, 995.
reaction given by insulin solutions *in vitro*, i, 1512.
- Benedict, S. R.** See also *R. C. Theis*.
- Benedik, (Miss) I.** See *J. Klimone*.
- Bener, C.** See *F. Kehrman*.
- Benesch, E.**, determination of copper value of celluloses, ii, 74.
- Benevolenskaja, S. V.** See *A. E. Tschitschibabin*.
- Bengough, G. D., and R. May**, [corrosion of copper, brass, and zinc in sea-water]; seventh report to the Corrosion Research Committee of the Institute of Metals, ii, 218.

- Bengtsson, E.**, and **E. Svensson**, conditions for appearance, and structure, of bands of silver between $\lambda = 3330$ and $\lambda = 3358$, ii, 166.
- Benguerel, C.**, determination of chlorides in blood, i, 455.
detection of urobilin and urobilinogen in urine, i, 460.
- Bennett, C. T.**, and **D. C. Garratt**, isopropyl, propyl, and ethyl alcohols: refractive indices, i, 498.
- Bennett, G. M.**, hepto- and nono-dilactones, i, 883.
- Bennett, G. M.**, and **W. A. Berry**, Rây's supposed triethylene trisulphide, i, 695.
- Bennewitz, K.**, theory of degraded gases at null point energy, ii, 97.
- Benoit, F.** See **A. Guntz**.
- Benton, A. F.**, and **P. H. Emmett**, reduction of nickelous and ferric oxides by hydrogen, ii, 216.
- Berckmans, V. S. F.**, and **A. F. Holleman**, tetrachloronitrobenzenes, tetrachlorodinitrobenzenes, and their reaction with sodium methoxide, i, 1136.
- Berczeller, L.**, and **H. Wastl**, sinking of red blood-corpuscles in flowing blood, i, 452.
viscosity of suspensions of blood-corpuscles. I., i, 452.
- Bere, C. M.**, and **S. Smiles**, derivatives of aniline disulphoxide, i, 21.
- Béranger, (Mlle.)**, and **A. Tian**, heats of solution and heats of incomplete reactions, ii, 790.
- Beretta, A.** [with **N. Jacob**], synthesis of 1-*p*-sulphophenyl-1:2:5-triazole-3:4-dicarboxylic acid, i, 589.
- Beretta, A.** See also **G. Charrier**.
- Berg, A.**, brominated additive products of Schiff's bases, i, 817.
- Berg, O.** See **W. Noddack**.
- Berg, O. W.** See (*Mlle.*) **E. Gleditsch**.
- Bergami, G.** See **F. Bottazzi**.
- Bergelm, O.**, intestinal chemistry. I. Determination of intestinal reductions. II. Intestinal reductions as a measure of putrefaction; influence of diet, i, 99.
- Borger, G.**, photocatalytic effect of neutral salts, ii, 313.
- Berger, G.** See also **S. C. J. Olivier**.
- Berger, Gottfried.** See **Heinrich Schulze**.
- Berger, J.**, Van der Waals' equation and the liquid state of aggregation. II., ii, 376.
- Bergerhoff, K.** See **H. Thoms**.
- Bergh, A. A. H. van den**, and **H. Wieringa**, formation of sulphæmoglobin, i, 1475.
- Bergheimer, E.** See **R. Lorenz**.
- Berglund, V.** See **G. von Hevesy**.
- Bergmann, M.**, constitution of proteins, i, 848.
unsaturated reduction products of the sugars. X. ψ -Glucal and dihydro- ψ -glucal, i, 887.
- Bergmann, M.**, and **H. Ensslin**, compounds of formaldehyde with glycine, i, 1046.
- Bergmann, M.**, **H. Ensslin**, and **L. Zervas**, aldehydic compounds of amino-acids, i, 890.
- Bergmann, M.**, and **E. Knehe**, chemistry of substances of high molecular weight. I. An anhydride of cellobiose, i, 1384.
- Bergmann, M.**, **A. Miekeley**, and **E. Kann**, transformations of peptide substances. V. Conversion of serine into pyruvic acid and alanine, i, 1134.
high-molecular bodies. II. "High-molecular" amino-acid anhydrides of the piperazine type, i, 1474.
- Bergmann, M.**, **A. Miekeley**, and **F. Stather**, unsaturated reduction products of the sugars and their transformations. IX. Anhydride of a disaccharide from δ -hydroxy- δ -acetyl-butyl alcohol, i, 227.
- Bergmann, M.**, **A. Miekeley**, **F. Weinmann**, and **E. Kann**, transformations of peptide substances. IV. Hydrolytic deamination of amino-acids, i, 795.
- Bergmann, M.**, and **A. Miekeley** [with **C. Witte**], transformations of peptide substances. III. Derivatives of *dl*-serine; new anhydrides of glycyl-serine, i, 235.
- Bergmann, M.**, and **F. Stather**, action of alkalis on keratin, i, 847.
- Bergstrom, F. W.**, reaction between potassamide and salts of cobalt and iron in liquid ammonia, ii, 231.
acid properties of ammonium salts in liquid ammonia, ii, 315.
electronegative potential series in liquid ammonia, ii, 794.
displacement of metals from solutions of their salts by less electro-positive elements. II. Reaction between amides of the alkali and alkaline-earth metals and elements more electro-positive than tin, ii, 885.
action of ammonia and of a solution of potassamide in liquid ammonia on certain halides of molybdenum and tungsten, ii, 1033.
- Bering, F.**, effect of adsorption compounds on infectious diseases, i, 858.

- Berk, J., and P. H. Hermans**, action of nitrous acid on aliphatic primary amines, and formation of aliphatic diazo compounds, i, 794.
- Berkhoff, G.** See *F. A. H. Schreinemakers*.
- Berkhout, P. J. T. van**, determination of dextrose, non-protein nitrogen, uric acid and total phosphorus in normal human blood in tropical regions, and in the blood of birds suffering from avitaminosis, i, 453.
- Berkmann, S.** See *N. Isgarischev*.
- Berl, E., and H. Fischer**, explosive limits of mixtures of gas or vapour with air, ii, 413.
- Berl, E., and F. Ran**, determination of molecular weight by aid of the gas-interferometer of Haber and Löwe, ii, 24.
- Berl, E., and E. Wachendorff**, adsorption experiments with solutions, ii, 507.
- Berlin, L. W.** See *K. Brand*.
- Berliner, J. F. T., and O. E. May**, vapour pressure. I. Nitroanilines, ii, 1045.
- Berliner, J. F. T.** See also *R. M. Hann*.
- Bernal, J. D.**, structure of graphite, ii, 17.
- Bernardi, V.** See *G. Ponzio*.
- Berner, E.** See *C. N. Riiber*.
- Bernfeld, A.** See *A. Fodor*.
- Bernhard, A.**, uric acid content of cerebrospinal fluid, i, 326.
- Bernhard, X.** See *O. Keller*.
- Bernhardt, F.**, saturation pressure of mercury up to 2000 kg./cm.², ii, 493.
- Bernhardt, H.**, determination of very small quantities of lead in animal tissues and the ageing of very dilute solutions of lead nitrate, ii, 1003.
- Bernhardt, H., and C. H. R. Rabl**, effect of yellow phosphorus (on rats) with varying mineral nutrition, i, 1357.
- Bernhardt, H., and H. Ucko**, bromine content of blood; detection of minute quantities of bromine, i, 454.
- Bernhauer, E.** See *E. Späth*.
- Bernhauer, K.**, acid formation by *Aspergillus niger*, i, 205.
- Bernouilly, O.** See *F. Straus*.
- Bernstein, J. K.** See *M. Coblens*.
- Bernton, A.**, aliphatic hydroxyphosphinic acids. I. α -Carboxy- α -hydroxyethylphosphinic acid, i, 646.
- Berrer, E.** See *L. Kalb*.
- Berry, A. J.**, thalious thallic halides, ii, 59.
- Berry, W. A.** See *G. M. Bennett*.
- Bert, L.**, preparation of aromatic γ -chloroallyl derivatives and their use in the synthesis of aromatic acetylenic hydrocarbons, alcohols, and aldehydes, i, 803.
- general method of synthesis of allyl compounds, i, 1052.
- Bert, L., P. C. Dorier, and R. Lamy**, homologues of γ -phenylpropinene, i, 1373.
- Berthelot, A., and G. Ramon**, agents for the transformation of toxins into anatoxins, i, 481.
- Berthelot, D.**, law of photochemical equivalents and the place of the quantum theory in relation to the atomic theory and energetics, ii, 1022.
- Bertho, A.**, general method of formation of 1-phenyl-4-alkyl-1:2:3-triazoles, i, 840.
- Berthold, R.**, photographic and ionisation effect of X-rays of different wavelengths, ii, 252.
- Berthoud, A.**, photochemical sensitisation, ii, 1083.
- Berthoud, A., and H. Bellenot**, photochemistry of the halogens; action of light on the reactions of iodine or bromine with potassium oxalate, ii, 141.
- Bertolo, P.**, action of iodine on desmotroposantonin: artemisic acid, i, 546.
- genesis of artemisic acid from desmotroposantonin, i, 921.
- reactions of glycyrrhizin, ii, 1212.
- Berton, A. L.** See *G. Vavon*.
- Bertrand, G.**, determination of the different forms of manganese present in arable soil, i, 223.
- new reaction of the pentoses, i, 790.
- Bertrand, G., and A. Compton**, so-called reversibility of enzyme action; complete hydrolysis of salicin by emulsin, i, 738.
- Bertrand, G., and M. Machebeuf**, presence of nickel and cobalt in animals, i, 719.
- amount of cobalt in organs of animals, i, 996.
- Bertrand, G., and M. Mokragnatz**, general occurrence of nickel and of cobalt in arable land, i, 492.
- presence of nickel and cobalt in vegetables, i, 873.
- Bertrand, G., and H. Nakamura**, comparative physiological importance of iron and zinc, i, 1114.
- Besler, E.** See *B. Helferich*.
- Bessaritsch, R.** See *W. Steinkopf*.

- Best, C. H.**, and **J. H. Ridout**, blood lactic acid after insulin, i, 754.
- Best, C. H.** See also **D. A. Scott**.
- Bestehorn, H.** See **K. Feist**.
- Bettzieche, F.**, action of Grignard reagents on amino-acids. III. Deamination of tertiary amino-alcohols by acetic acid and sodium nitrite: conversion into carbonyl compounds with migration of groups, i, 251.
- action of Grignard reagents on amino-acids. V. Wandering of acyl groups in amino-alcohols and glycols, i, 1147.
- Bettzieche, F.** See also **K. Thomas**.
- Beuker, H.** See **H. C. Kremers**.
- Beust, R. von.** See **M. Busch**.
- Beyne, E.**, volumetric determination of zinc, ii, 69, 438.
- Bezssonoff, N.**, colour reactions of the fat-soluble vitamins. i, 107.
- nature of the antiscorbatic principle, vitamin-C, i, 751.
- Jendrassik reaction for vitamin-B, i, 1220.
- Bezssonoff, N.** See also **G. Truffaut**.
- Bhagwat, V. K.**, and **F. L. Pyman**, 4- and 5-nitro-1:2-dimethylglyoxalines, i, 1174.
- Bhatnagar, S. S.**, **M. Prasad**, and **D. C. Bahl**, protective action of soaps and further evidence in favour of the chemical theory of adsorption. III., ii, 1155.
- Bhatnagar, S. S.**, **M. Prasad**, **N. G. Mitra**, and **D. L. Shrivastava**, electrical resistance of thin films of organic liquids on paper, ii, 948.
- Bhatnagar, S. S.**, **M. Prasad**, and **D. M. Mukerji**, surface tension of sodium and potassium amalgams at the amalgam-benzene interface, ii, 194.
- effect of light on the interaction of water and sodium and potassium amalgams, ii, 811.
- Bhatnagar, S. S.**, **M. Prasad**, and **D. D. Ohri**, effect of water on dried and pressed silica gel. I., ii, 966.
- Bhatnagar, S. S.** See also **D. L. Shrivastava**.
- Bhide, B. V.**, and **J. J. Sudborough**, esterification, i, 1127.
- Bialosuknia, V.**, rôle of different nitrogenous compounds as sources of nitrogen for higher plants in pure cultures, i, 1366.
- cyanamide, its derivatives, and hexamethylenetetramine as sources of nitrogen for wheat, cabbage, and white mustard in pure cultures, i, 1366.
- Bianchessi, M.** See **G. Charrier**.
- Bianu, M. V.**, number of ions produced by the α -particle from polonium, ii, 348.
- Biata, (Mlle.) M.** See **A. Chrzyszczewska**.
- Bichowsky, F. V.**, generation of hydrocyanic acid, i, 236.
- Bidault, C.**, and **S. Blaignan**, bacterium producing ethyl butyrate, i, 1216.
- Biedermann, W.**, and **C. Jernakoff**, hydrolysis of starch by salts. IV. Hydrolysis by blood pigments and plant peroxidases, i, 11.
- Biehler, W.**, concentration in the blood and excretion of alcohol at high altitudes, i, 1115.
- Bielecki, J.**, and **J. Sztencel**, investigation of the phosphorus compounds in the fruit of the walnut (*Juglans regia*), i, 215.
- Bieler, E. S.**, band spectra of lead isotopes, ii, 732.
- Bielozerski, A. N.** See **A. V. Blagoveschenski**.
- Bielz, F.**, direct measurement of mean free path of uncharged silver atoms in nitrogen, ii, 668.
- Bierich, R.**, and **A. Rosenbohm**, biochemistry of cancer formation, i, 328.
- Bierman, H. R.**, and **F. J. Doan**, colorimetric picric acid method for determining lactose, ii, 245.
- Bierry, H.**, and **L. Moquet**, micro-determination of free sugar in total blood, i, 179.
- glycolysis and changes of the inorganic phosphorus in blood *in vitro*, i, 454.
- Bierry, H.**, and **F. Rathery**, excretion of ketone substances and β -hydroxybutyric acid in depancreatised dogs, i, 856.
- Bierry, H.**, **F. Rathery**, and **R. Kourilsky**, is glycolysis diminished in diabetic blood? i, 1207.
- Bierry, H.**, **F. Rathery**, and **L. Levina**, variations in the blood-sugar of splenectomised dogs, i, 857.
- Bierry, H.** See also **A. Desgrez**.
- Bieber, A.**, **M. W. Wood**, and **C. S. Wahlin**, carbohydrates. I. Relative sweetness of pure sugars, i, 1498.
- Bieber, A.** See also **J. J. Willaman**.
- Bigelow, L. A.**, reaction between benzyldieneaniline and carbon disulphide at high temperature and pressure, i, 242.
- Bigiavi, D.**, and **A. Angeli**, action of nitrous acid on azoxyphenols, i, 316.
- Bigiavi, D.**, and **G. Kindt**, oxidation of benzeneazophenol [*p*-hydroxyazobenzene], i, 597.

- Bigwood, E. J.**, p_H limits of normal blood; regulation of p_H in normal and pathological conditions, i, 1342.
- Billmann, E., A. L. Jensen, and K. O. Pedersen**, method of measuring reduction potentials of quinhydrone, ii, 404.
- Billmann, E.** See also *G. E. Cullen*.
- Bijvoet, J. M.** See *N. H. Kolkmeijer*.
- Bikerman, J. J.**, organic sols of arsenic trisulphide, ii, 522.
- Billeter, O.**, rearrangement of thiocyanates into thiocarbimides, i, 1051.
- Billig, K.** See *K. Fries*.
- Billon, P.**, primary β -amino-alcohols having the general formula $R \cdot CH(NH_2) \cdot CR^1R^2 \cdot CH_2 \cdot OH$, i, 120.
- Bills, C. E.**, resistance to reagents of the antirachitic substance in cod-liver oil, i, 1019.
- Biltz, H.**, simultaneous electrolytic determination of copper and lead, ii, 715.
- Biltz, H., and A. Beck**, action of phenylcarbimide on methylcarbamide, i, 1393.
- Biltz, H., and E. Peukert**, 3-ethyluric acid and 3-ethylxanthine, i, 1462.
- Biltz, W.**, volume of the water in the hydrates of calcium sulphate, ii, 356.
theory of swelling and reversibility phenomena of colloids, ii, 520.
aluminium sulphide, ii, 986.
- Biltz, W.** [with *H. Bröhan* and *W. Wein*] systematic doctrine of affinity. XXXVI. Ammoniates of cupric halides, ii, 1182.
- Biltz, W.** [with *E. Rahlfs*], systematic doctrine of affinity. XXXII. Higher ammoniates of halides of the iron group, ii, 1191.
- Biltz, W.** [with *W. Wein*], systematic doctrine of affinity. XXXV. Ammoniates of aurous halides, ii, 1182.
- Biltz, W., and H. G. Grimm**, lattice energy of amines, ii, 842.
- Biltz, W., and W. Holverschheit**, systematic doctrine of affinity. XXX. Heats of formation of intermetallic compounds. VI. Tin alloys, ii, 268.
- Biltz, W., and E. Keunecke**, systematic doctrine of affinity XXXI. Thiohydrates, ii, 986.
- Biltz, W., and W. Klemm**, fused electrolytes, ii, 127.
- Biltz, W., and C. Mau**, systematic doctrine of affinity. XXXIV. Ammoniates of cadmium and mercury halides, ii, 1184.
- Biltz, W., and C. Messerknecht**, systematic doctrine of affinity. XXXIII. Ammoniates of beryllium halides, ii, 1183.
- Biltz, W.** See also *C. Messerknecht*.
- Binder, K.**, potassium ferritripyrocatecholoxide as an indicator for acidimetry and alkalimetry, ii, 596.
- Bing, H. J., and H. Hecksher**, quantitative determination of the "primary ether extract" of blood, i, 995.
fat + cholesterol content of the blood in cases of Basedow's disease, i, 999.
- Bingham, E. C.**, Shimer filter tube, ii, 432.
plasticity in colloid control, ii, 1157.
- Binz, A., and H. Bausch**, sulfoxyl compounds. XIV. Aldehydesulphoxylates as protective colloids, i, 991.
- Binz, A., H. Bausch, and E. Urbach**, arseno-metallic compounds. IV. Silver salvarsan, i, 1195.
- Binz, A., and C. Râth**, constitution of sulphur-blue, i, 445.
- Birch, C. F., and W. S. G. P. Norris**, petroleum. I. Occurrence of compounds of sulphur in the light distillate from the crude oil of Maidan-i-Naftun, i, 628.
petroleum. II. Action of sodium hypochlorite on sulphur compounds of the types found in petroleum distillates, i, 1229.
- Bircher, L. J.**, graphic comparison of potential scales and electrode potentials, ii, 711.
- Bircher, L. J., W. D. Harkins, and G. Dietrichson**, two types of overvoltage and the temperature effect, ii, 211.
- Bircher, L. J., A. W. Ingersoll, B. F. Armendt, and G. Cook**, electrolytic preparation of semicarbazide sulphate, i, 525.
- Birkenbach, L., and K. Kellermann**, pseudohalogens. I., ii, 568.
- Birge, R. T.**, further spectra associated with carbon, ii, 829.
band spectra associated with carbon, ii, 836.
- Birge, R. T., and J. J. Hopfield**, quantum analysis of new nitrogen bands in the ultra-violet, ii, 737.
- Birtwell, C., D. A. Clibbens, and B. P. Ridge**, chemical analysis of cotton; oxycellulose. I., i, 234.
- Bischoff, F.**, oil of *Echinacca angustifolia*, i, 760.
- Bischoff, F., and H. Adkins**, organic reactions at the surface of titania; adsorption of certain gases by titania, ii, 568.
- Bishop, G.** See *O. L. Brady*, and *J. N. Collie*.
- Bissinger, E., E. J. Lesser, and K. Zipf**, mechanism of the action of insulin, i, 209.

- Bistrzycki, A.**, and **J. Risi**, action of benzoic and anisic acids on thiophenols, i, 1426.
- Bittner, K.** See **A. Kurtenacker**.
- Bizzell, J. A.** See **T. L. Lyon**.
- Bjeljaeva, W.** See **A. Palladin**.
- Bjerregaard, A. P.**, crystallising point of paraffin wax, i, 769.
- Bjerrum N.**, theory of osmotic pressure, membrane potential, and coagulation of colloids; colloidal chromium hydroxide, ii, 111.
- Bjerrum, N., A. Unmack**, and **L. Zechmeister**, dissociation constant of methyl alcohol, ii, 1062.
- Björkesen, A.**, X-ray radiation from hot sparks, ii, 830.
- Björkesen, A.** See also **L. Pauling**.
- Black, A.** See **H. Steenbock**.
- Black, A. P.** See **H. W. Doughty**.
- Black, C. A.** See **A. T. Larson**.
- Black, D. H.**, β -ray spectrum of mesothorium. II., ii, 10.
electrical properties of liquid sulphur, ii, 24.
high-energy γ -ray from thorium disintegration products, ii, 177.
 β -ray spectra of thorium disintegration products, ii, 922.
- Blackburn, C. M.**, application of the quantum theory of band spectra to the first negative Deslandres group of carbon, ii, 260.
- Blackett, P. M. S.**, ejection of protons from nitrogen nuclei, photographed by the Wilson method, ii, 256.
- Blackett, P. M. S.**, and **J. Franck**, excitation of the hydrogen spectrum by electron impact, ii, 1097.
- Blackshaw, G. N.**, silage, its composition and value as a farm food, i, 1523.
- Blagoveschenski, A. V.**, ripening of seeds, i, 756.
- Blagoveschenski, A. V.**, and **A. N. Bielozerki**, specific action of plant ferments. II. Specific conditions of action of leaf peptases, i, 1009.
- Blagoveschenski, A. V.**, and **N. I. Sossiedov**, specific action of plant ferments. I. The specific conditions of action of leaf invertases, i, 1007.
- Blaiguan, S.** See **C. Bidault**.
- Blair, E. W.**, and **W. Ledbury**, partial formaldehyde vapour pressures of aqueous solutions of formaldehyde. I., ii, 400.
- Blaise, E. E.**, and (*Mlle.*) **M. Montagne**, preparation of acyclic δ -diketones, i, 633.
formation of pyridine derivatives from acyclic δ -diketones, i, 835.
- Blaise, E. E.**, and (*Mlle.*) **M. Montagne**, conversion of dialkylcyclohexenones into dialkylbenzenes, i, 1071.
- Blake, F. C.**, precision X-ray measurements by the powder method, ii, 844.
- Blake, F. C.** See also **R. J. Havighurst**.
- Blanchetière, A.**, evolution of knowledge of the chemical structure of protein compounds, i, 602.
colour reactions of tryptophan with aldehydes, i, 963.
sodium, potassium, and calcium in blood after ovariectomy and in the menopause, i, 1207.
- Blanchetière, A.**, and **H. Cardot**, mineral composition of the blood of dogs (under narcosis), i, 455.
- Blanck, E.**, and **W. Lohmann**, conversion of quicklime into calcium carbonate in soils, i, 223.
- Blanck, E.**, and **A. Rieser**, chemical alteration of granite beneath peat, ii, 820.
- Blanck, E.**, and **F. Scheffer**, conversion of calcium oxide into calcium carbonate in the soil and the causes of its combination, i, 491.
- Blanco, J. G.** See **F. Knoop**.
- Blank, H. R.** See **J. H. Müller**.
- Blaschko, H.**, heat of combustion of pyruvic acid and its physiological significance, i, 1011.
- Blaszkovska, (*Mlle.*) Z.**, heats of formation of quinonechloroimines and quinonedichlorodi-imines, ii, 1042.
- Blaszkovska, (*Mlle.*) Z.** See also **W. Swientoslawski**.
- Blatt, H.** See **P. Landrieu**, and **C. Moureu**.
- Blau, M.**, photographic action of H-particles from paraffin and aluminium, ii, 1111.
- Bleeker, C. E.**, and **I. A. Bongers**, intensity measurements in flame spectra, ii, 77.
- Blencke, W.** See **R. Fricke**.
- Blessl, H.** See **G. Sachs**.
- Bleyer, E.**, and **O. Kallmann**, less studied constituents of cows' milk. I., i, 184.
less studied constituents of cows' milk. II. The water-soluble yellowish-green colouring matter, i, 457.
- Bleyer, L.**, changes of buffering and the amino-nitrogen increase in nutrient media by bacterial action, i, 746.
- Blicke, F. F.**, reaction between metallic sodium and aromatic aldehydes, ketones, and esters. I. Aldehydes, i, 37.

- Blicke, F. F.**, reaction between metallic sodium and aromatic aldehydes, ketones, and esters. II. Esters, i, 662.
dissociation of benzopinacol derivatives, i, 811.
- Blindow, K.** See *E. Koehler*.
- Blish, M. J.**, and *A. J. Pinckney*, identity of gluten proteins from various wheat flours, i, 176.
- Blish, M. J.** See also *C. W. Ackerson*.
- Bloch, E.** See *L. Bloch*.
- Bloch, L.**, and *E. Bloch*, spark spectrum of iron in the Schumann region, ii, 78.
spark spectrum of tungsten in the Schumann region, ii, 168.
chlorine spark spectra, ii, 611.
spark spectra in the Schumann region, ii, 726, 829.
- Bloch, L.**, *E. Bloch*, and *G. Déjardin*, spark spectrum of neon, ii, 334.
- Bloch, W.** See *W. Herz*.
- Blok, C. J.**, determination of the p_H "spectrum" for bacteria, and application to *Bacillus coli*, i, 615.
- Blom, J. H.** See *O. Diels*.
- Bloor, W. R.**, plasma lipoids in experimental anaemia, i, 609.
biochemistry of the fats, i, 1346.
- Blümmel, F.** See *K. Freudenberg*.
- Bluker, (Miss) C. E.**, flame spectra and chemical reaction, ii, 1025.
- Blum, L.**, and *L. Delaville*, modification of the blood and secretions by ultrafiltration, i, 605.
mechanism of acidosis, i, 723.
- Blum, L.**, *M. Delaville*, and *V. Caulaert*, modifications of the blood during anaphylactic shock, i, 188.
- Blum, W.**, "electrolytes" and "ionogens," ii, 402.
- Blumberger, J. S. P.** See *J. Böeseken*.
- Blunck, R.**, and *P. P. Koch*, determination of intensity ratios in systems of Debye-Scherrer rings; application to the investigation of the photographic process, ii, 940.
- Boas, F.**, and *F. Merckenschlager*, plant tyrosinases (with particular regard to the action of quinine), i, 474.
- Boas, M. A.**, value of egg-white as sole source of nitrogen for young growing rats, i, 211.
- Boas, I.**, determination of pepsin in gastric juice, i, 1213.
- Bobilloff, W.**, hydrogen-ion concentration in the latex of *Hevea brasiliensis*, i, 622.
- Bobko, E. W.**, and *D. W. Druschinin*, influence of individual factors on the reaction of the soil solution, i, 1525.
- Bobrownicki, W.**, action of hydrogen on calcium cyanamide, i, 526.
- Bock, A. V.**, and *H. Field, jun.*, carbon dioxide equilibrium in alveolar air and arterial blood, i, 93.
- Bock, J. C.** See *M. Gilbert*.
- Bock, R.**, dielectric constants and absorption-coefficients of glycerol, ii, 355.
- Bockstahler, L. J.**, specific heat of incandescent tungsten, ii, 643.
- Bodansky, M.**, distribution of unsaturated fatty acids, cholesterol, and cholesterol esters in experimental anaemia, i, 724.
- Bodansky, O.** See *J. M. Nelson*.
- Bode, K.** See *R. Ruer*.
- Boden, E.**, *P. Neukirch*, and *F. Wankell*, insulin-like behaviour of oat bran extract, i, 483.
- Bodenstein, M.**, theory of catalytic hydrogenation by means of platinum, ii, 216.
- Bodenstein, M.**, mechanism of photochemical reactions, ii, 1075.
- Bodenstein, M.**, *P. Harteck*, and *E. Padelt*, chlorine hexoxide, ii, 991.
- Bodenstein, M.**, and *G. Kistiakowski*, photochemical decomposition of chlorine monoxide, ii, 883.
- Bodenstein, M.**, and *H. Lütkemeyer*, photochemical formation of hydrogen bromide and velocity of formation of the bromine molecule from the atoms, ii, 218.
- Bodenstein, M.**, and *H. Plant*, formation and thermal decomposition of carbonyl chloride, ii, 135.
- Bodforss, S.**, mechanism of Fischer's synthesis of indoles, i, 698.
- Bodforss, S.**, and *A. Arstal*, formation of perborates by electrolysis using unsymmetrical alternating current, ii, 414.
- Bodine, J. H.**, and *D. E. Fink*, micro-electrode for determination of hydrogen-ion concentration, i, 1201.
- Bodé, R. von**, determination of iodides in urine, i, 1490.
- Boechi, C.** See *G. Rossi*.
- Boedecker, F.**, and *O. Wunstorf*, constitution of hydrargyrum salicylicum and related substances, i, 1107.
- Boedtker, E.**, presence of lecithin in fats, i, 1114.
- Böeseken, J.**, complex compounds of boron and the asymmetry of borosalicylic acid, i, 449.
transformations of a new type, i, 1237.
repulsive action of mutually equal and mutually differing groups in saturated organic compounds, ii, 1031.

- Böeseke, J.**, and *J. S. P. Blumberger*, action of iodine in chloroform solution on some ethylenic hydrocarbons, i, 225.
velocity of oxidation of aromatic ethylene derivatives by Prileschaeff's reagent, i, 240.
- Böeseke, J.**, *W. D. Cohen*, and *S. L. Langedijk*, reaction of ketones with alcohols under the influence of light. I. Absorption spectra of some ketones, i, 408.
- Böeseke, J.**, and *H. Gelissen*, action of benzoyl peroxide on chloroform and on carbon tetrachloride (a new synthesis of ω -trichlorotoluic acids), i, 30.
- Böeseke, J.**, and *J. A. Mijs*, asymmetric derivatives of boron, i, 911.
- Böeseke, J.**, and *A. E. J. Peck*, *cis*- and *trans*-cyclohexane-1:3-dicarboxylic acids; separation of the *trans*-acid into its optically active components, i, 1150.
- Böeseke, J.**, and (*Mlle.*) *H. J. Ravenswaay*, refractive index of Chinese wood oil and the structure of α - and β -elaeostearic acids, i, 507.
constitution of α -elaeostearic acid from Chinese wood oil and from its isomeride β -elaeostearic acid, i, 1129.
- Böhme, E.** See *W. Ostwald*.
- Boehringer Sohn, C. H.**, preparation of α -lobeline, i, 425.
preparation of papaverine nitrite, i, 427.
preparation of compounds of lecithin with bile acids and their alkali salts, i, 824.
- Bölle, E.** See *W. Autenrieth*.
- Boer, J. H. de**, detection of ortho-, pyro-, and meta-phosphate occurring together, and in presence of sodium fluoride, ii, 67.
- Boer, J. H. de**, and *A. E. van Arkel*, separation of zirconium and hafnium by crystallisation of the double ammonium fluorides, ii, 243.
separation of zirconium from its ores as phosphate, ii, 705.
behaviour of zirconium phosphate towards acids and bases, ii, 1185.
- Boer, J. H. de.** See also *A. E. van Arkel*.
- Börjeson, G.**, electric synthesis of colloids, ii, 197.
- Börnegg, C. B. von**, rapid determination of solid matter in liquids, ii, 324.
- Boeters, H.** See *C. Paal*.
- Bogatsky, W.** See *P. Petrenko-Kritschenko*.
- Bogert, M. T.**, and *M. Chertcoff*, new group of dyes from poison gases through the 2-aminothiazoles as intermediates; preparation of thiazole dyes of Doebner-violet type, i, 80.
thiazoles. VI. New group of dyes from poison gases through the 2-aminothiazoles as intermediates; preparation of thiazole dyes of Doebner violet type, i, 315.
- Bogert, M. T.**, and *J. J. Ritter*, constitution of the "Pechmann dyes," and the mechanism of their formation from β -benzoylacrylic acid, i, 36.
unsaturated ketonic acids. I. Constitution of the so-called "Pechmann dyes" and the mechanism of their formation from β -benzoylacrylic acid, i, 255.
- Bogert, M. T.**, and *J. J. Ritter*, unsaturated ketonic acids. II. Experiments with β -benzoylacrylic acid and related compounds, i, 816.
- Boggio-Lera, E.** See *A. Piatti*.
- Bogue, R. H.**, plasticity and structure in gelatin systems, ii, 1058.
- Bogue, R. H.**, and *M. T. O'Connell*, influence of hydrogen-ion concentration on the optical rotation of gelatin, ii, 744.
- Bohanes, A.**, determination of volatile organic acids, ii, 605.
- Bohn, G.** See *A. Drzewina*.
- Bohn, P. R.**, presence of calcium oxalate crystals on the surface of certain *Caryophyllaceae*, i, 1124.
- Bohne, A.** See *A. Windaus*.
- Bohr, N.**, action of atoms in collision, ii, 1022.
- Boitard, G.**, chemical theory of corresponding states, ii, 865.
- Bokhorst, S. C.**, and *H. van der Zee*, allotropy of mercuric iodide, ii, 490.
- Bokorny, T.**, bases as [plant] growth-promoting substances and the pickling of seed with bases and other substances, i, 489.
- Bolin, I.**, conditions of maximum stability for some organic substances, ii, 411.
- Bolliger, A.**, and *F. W. Hartman*, relation of blood phosphates to carbohydrate metabolism, i, 1000.
- Bollmann, J. L.**, *F. C. Mann*, and *T. B. Magath*, physiology of the liver. X. Uric acid following total removal of the liver, i, 1496.
- Bom, T. van der.** See *C. Dhéré*.
- Bonath, K.** See *G. Giemsa*, and *A. Papendieck*.

- Bondi, J.** See *H. Fringsheim*.
- Bone, W. A., D. M. Newitt, and D. T. A. Townsend,** gaseous combustion at high pressures. V. Explosion of hydrogen-air and carbon monoxide-air mixtures at varying initial pressures up to 175 atmospheres, ii, 800.
- Bonem, P.** See *S. Edlbacher*.
- Bongards, H.,** determination of the radioactive content of the air by streaming, ii, 621.
- Bongers, I. A.** See *C. E. Bleeker*.
- Bonhoeffer, K. F.,** active hydrogen, ii, 52.
behaviour of active hydrogen, ii, 52.
chemical luminescence with active hydrogen, ii, 839.
- Bonino, G. B.,** spectro-chemistry in the ultra-red. VII. Absorption of certain homologous ketones, ii, 838.
spectro-chemistry in the ultra-red. VIII. Absorption of certain halogenated hydrocarbons, ii, 838.
spectro-chemistry in the ultra-red. IX. Origin of the absorption bands incorrectly attributed to the groups $-\text{CH}_3$ and $-\text{CH}_2-$, ii, 1032.
- Bonnet, A.** See *L. Meunier*.
- Bonnet, R.** See *E. F. Terroine*.
- Booge, J. E.** See *J. Kendall*.
- Boomer, E. H.,** chemical activity of helium, ii, 144, 925.
- Booth, H., and E. J. Bowen,** heats of solution and of decomposition of chlorine dioxide, ii, 299.
action of light on chlorine dioxide, ii, 573.
- Bordas.** See *D'Arsonval*.
- Bordas, F., François-Dainville, and Roussel,** elimination of benzoic acid and benzoates from the body, i, 1206.
- Bordas, F., and F. Touplain,** conductivity of water, ii, 155.
- Bordet, J., and M. Bordet,** bacteriolytic power of colostrum and of milk, i, 616.
- Bordet, M.** See *J. Bordet*.
- Borelius, G.,** electrical conductivity of mixed crystal alloys, ii, 749.
- Borelius, G., and C. H. Johansson,** coefficient of expansion at low temperatures, ii, 27.
- Borge, E.** See *K. A. Vesterberg*.
- Borisov, P.** See *N. D. Zelinski*.
- Borkenstein, W.** See *R. Schenck*.
- Born, F.,** dissociation of several metallic oxides, ii, 785.
vapour pressure of the volatile constituents of glass at the ordinary temperature, ii, 785.
- Born, M.,** electrical meaning of chemical affinity, ii, 482.
- Born, M., and J. Franck,** quantum theory and molecule formation, ii, 266.
dissipation of heat of reaction, ii, 365.
- Bornet, L.,** colour reactions of cryogenine with heavy metals, ii, 164.
- Bornträger, A.,** detection of small quantities of lactic acid in fruit [tomato] juice as calcium lactate, ii, 1007.
- Borsook, H., and H. Wasteneys,** enzymic synthesis of protein. II. Effect of temperature on synthesising action of pepsin, i, 472.
enzymic synthesis of protein. IV. Effect of concentration on peptic synthesis, i, 864.
- Borsook, H.** See also *H. Wasteneys*.
- Bosányi, A., and J. Csapó,** acid-combining power of the serum of healthy and diseased children, i, 188.
- Bosch, J. C. van der.** See *E. Cohen*.
- Bose, P. K.,** thiodiazines. I. Condensation of thiosemicarbazide with ω -bromoacetophenone, i, 167.
thiodiazines. II. Condensation of ω -bromoacetophenone with 4-substituted thiosemicarbazides; constitution of thiosemicarbazides, i, 1465.
- Bossuet, R.** See *P. Jolibois*.
- Bost, R. W.** See *A. S. Wheeler*.
- Boswell, M. C., and C. H. Bayley,** mechanism of the inhibition of the catalytic action of platinum black and partly reduced nickel oxide by chlorine, ii, 215.
action of promoters in catalysis, ii, 805.
- Bothe, W., and H. Geiger,** experimental test of the theory of Bohr, Kramers, and Slater, ii, 1.
- Botolfsen, E.** See *E. Gleditsch*.
- Bott, T. H.** See *F. Challenger*.
- Bottazzi, F., and G. Bergami,** effect of low temperatures on liquid colloidal systems, ii, 965.
- Bougault, J.,** α -hydroxy- γ -phenylcrotonamide, i, 921.
an anhydride (ether) of a ketone hydrate; benzyl- β -phenylethylsuccinic acids, i, 1152.
- Bouma, T.,** intensity ratios of some inter-combination lines, ii, 915.
- Bouman, N.,** electrochemical behaviour of chromium, ii, 46.
- Bourgeaud, M., and A. Dondelinger,** affinity constant of some organic bases, ii, 117.
- Bourguet, M.,** preparation of true acetylenic hydrocarbons, i, 1, 770.

- Bourguet, M.**, action of phosphorus pentachloride on certain aldehydes and ketones, i, 364.
hydrogenation of triple linkings; formation of *cis*-ethylenic compounds, i, 883.
- Bourion, F.**, and **J. Picard**, kinetic study of the reduction of mercuric bromide by sodium formate, ii, 685.
- Bourjau, W.** See **H. Ohle**.
- Bourne, C. L. C.** See **J. B. Harrison**.
- Bourne, W.** See **R. L. Stehle**.
- Boutaric, A.**, flocculation of colloidal solutions, ii, 393.
- Boutaric, A.**, and **G. Corbet**, critical solution temperature of ternary mixtures, ii, 103.
- Boutaric, A.**, and (*Mme.*) **Y. Manière**, influence of radiations on the flocculation of colloidal solutions, ii, 394.
influence of very small quantities of foreign substances on the stability of colloidal solutions, ii, 778.
- Boutaric, A.**, and (*Mlle.*) **G. Perreau**, protection of colloidal solutions by the addition of electrolytes in quantities insufficient to produce flocculation, ii, 526, 863.
influence of some stable colloids on the flocculation of sols and suspensions, ii, 1155.
- Boutaric, A.**, and **M. Vuillaume**, colloidal arsenic sulphide, ii, 112.
- Bouyoucos, G. J.**, heat of wetting as a new means of determining the colloidal materials in soils, i, 348.
heat of wetting of soils dried at different temperatures and the force with which soils absorb water, i, 1228.
factors influencing the heat of wetting of soil colloids, i, 1228.
- Bovalini, E.** See **U. Sborgi**.
- Bowen, A. R.** See **G. T. Morgan**.
- Bowen, E. J.**, dissociation theory and photochemical thresholds, ii, 1074.
photo-activation of chlorine, ii, 1079.
- Bowen, E. J.**, and **J. F. Sharp**, photochemical decomposition of nitrosyl chloride, ii, 695.
- Bowen, E. J.** See also **H. Booth**.
- Bowen, I. S.**, and **R. A. Millikan**, series spectra of two-valency-electron systems and of three-valency-electron systems, ii, 252.
series spectra of the stripped atoms of phosphorus (P V), sulphur (S VI), and chlorine (Cl VII), ii, 342.
series spectra of two-valency-electron atoms of phosphorus (P IV), sulphur (S V), and chlorine (Cl VI), ii, 610.
- Bowen, I. S.**, and **R. A. Millikan**, *pp'* groups in atoms of the same electronic structure, ii, 916.
series spectra of two-valency-electron atoms of boron (B II) and carbon (C III), ii, 1013.
- Bowen, I. S.** See also **R. A. Millikan**.
- Bowen, N. L.**, and **J. W. Greig**, crystalline modifications of NaAlSiO_4 , ii, 997.
- Bowen, N. L.** See also **G. W. Morey**.
- Bowler, J. P.**, and **W. Walters**, toxicity and rate of excretion from the blood stream of calcium chloride, i, 723.
- Boyce, J. C.** See **J. H. Jones**.
- Boyd, W. J.**, action of mixtures of nitric acid and hydrochloric acid on acetone, i, 788.
- Boynton, L. C.** See **H. C. Sherman**.
- Bozorth, R. M.**, orientations of crystals in electrodeposited metals, ii, 1038.
- Bozorth, R. M.**, and **L. Pauling**, crystal structures of caesium tri-iodide and caesium dibromiodide, ii, 748.
- Brachmann, W.** See **E. Rupp**.
- Brackett, F. S.**, atomic force fields, ii, 2.
- Bradford, S. C.**, kinetic theory of vaporisation. I. and II., ii, 26, 1142.
- Bradley, A. J.**, crystal structure of lithium potassium sulphate, ii, 638.
allotropy of manganese, ii, 1124.
- Bradley, F.**, and **W. C. M. Lewis**, ionisation of two electrolytes in alcohol-water mixtures; influence of environment on ionisation, ii, 868.
- Bradley, H. C.** See **A. B. Hertzmann**.
- Brady, O. L.**, and **G. Bishop**, isomerism of the oximes. XXII. Configuration of the aldioximes, i, 930.
- Brady, O. L.**, and **J. Harris**, phenyl-carbamyl derivatives of nitrophenols, i, 1261.
- Brady, O. L.**, **S. W. Hewetson**, and **L. Klein**, reactions of the unsymmetrical trinitrotoluenes, i, 16.
- Brady, O. L.**, and **H. V. Horton**, alcoholysis of trinitroanisole and trinitrophenetole, i, 1409.
- Brady, O. L.**, and **L. Klein**, isomerism of the oximes. XXI. Action of picryl chloride and of chloro-2:4-dinitrobenzene on aldioximes, i, 674.
- Brady, O. L.**, and **R. P. Mehta**, isomerism of the oximes. XX. Isomeric *p*-nitrobenzophenoneoximes and their four methyl esters, i, 43.
- Brady, O. L.**, **W. G. E. Quick**, and **W. F. Welling**, nitration of phthal- and succin-*p*-tolil, i, 1400.

- Braecke, M.**, changes in the composition of *Rhinanthus crista galli*, L., *Melampyrum arvense*, L., and *M. pratense*, L., during a year's growth, i, 619.
- Bragg, (Sir) W. H.**, structure of quartz, ii, 1131.
- Bragg, W. L.**, influence of atomic arrangement on refractive index, ii, 92.
interpretation of intensity measurements in X-ray analysis of crystal structure, ii, 735.
- Bragg, W. L.**, and **S. Chapman**, theoretical calculation of rhombohedral angle of calcite etc., ii, 92.
- Brahm, C.**, volatile fatty acids formed by the acid fermentation of food-stuffs. I. "Electrosilage" of maize, i, 623.
- Braicovic, A.** See **P. Leone**.
- Bramley, A.**, velocity of the synthesis of hydrogen bromide by capacity change, ii, 802.
multiplet structure, ii, 831.
- Brammall, A.**, and **H. F. Harwood**, tourmalinisation in the Dartmoor granite, ii, 819.
- Branch, G. E. K.**, and **H. E. H. Branch**, action of halogens on pyrrole to give coloured solutions, i, 66.
- Branch, H. E. H.** See **G. E. K. Branch**.
- Brand, E.** See **M. Sandberg**.
- Brand, K.**, and **W. Krey**, coloured phenol ethers of the diphen succindene group, i, 904.
- Brand, K.**, and **O. Loehr**, compounds of the diphen succindene series. VII. Oxidation of diphen succinda-9:12-dione to phthalic acid and benziloo'-dicarboxylic acid, i, 683.
compounds of the diphen succindene series. VIII. Dimetrodiphen succinda-9:12-dione, i, 684.
- Brand, K.**, **H. Ludwig**, and **L. W. Berlin**, coloured hydrocarbons of the diphen succindene group; an abnormal Grignard reaction, i, 904.
- Brand, K.**, and **W. Mühl**, 9:12-diaryl- Δ^{10} -diphen succindenes and 9:12-diaryldiphen succindanes, i, 903.
- Brand, K.**, **O. Stallmann**, **W. Groebe**, and **H. Stein**, halochromism of triphenylmethane and azo compounds. X. Thiophenols and the bathochromic effect of the alkylmercapto group, i, 397.
- Brandt, A.** See **A. Stock**.
- Brandt, L.** See **G. Jander**.
- Brandt, P. M.** See **H. G. Miller**.
- Brass, K.**, and **G. Nickel**, diazido-, diaminodihydroxy-, and tetrahydroxy-phenanthraquinones, i, 273.
phenanthraquinonyl-8-azide and its acid decomposition, i, 446.
- Brass, K.**, and **O. Ziegler**, monoazides of anthraquinone, i, 685.
- Brauch, W.** See **A. Gigon**.
- Braun, G.** See **G. Zemplén**.
- Braun, J. von**, and **O. Bayer**, catalytic hydrogenation of indole bases, i, 428.
dihydrazines. VI. Further experiments in the sugar group with diphenylmethanedimethyldihydrazine, i, 1382.
- Braun, J. von**, **O. Bayer**, and **W. Kaiser**, cyclic sulphides. III., i, 1445.
- Braun, J. von**, and **O. Engel**, ring closures in the meta position in the benzene series. III., i, 382.
- Braun, J. von**, **R. Fussgänger**, and **M. Kühn**, tenacity of organic radicals. III., i, 1401.
- Braun, J. von**, and **W. Kaiser**, syntheses in the fatty-aromatic series. XV. o- γ -Bromopropylbenzyl bromide, i, 1414.
- Braun, J. von**, and **M. Kühn**, halogenated allyl halides, i, 1374.
- Braun, J. von**, and **H. Reich**, syntheses in the aliphatic-aromatic series. XVI. Chlorinated amines and amino-acids, i, 1405.
- Braun, J. von**, and **L. Schörnig**, hydrogenated carbazoles, i, 1449.
- Braun, J. von**, and **F. Zobel**, action of ammonia on bisammonium bromides, i, 1455.
- Braun, J. von.** See also **R. Willstätter**.
- Brauns, H.** [with **H. Hellweg**], diffusion in mixed crystals, ii, 103.
- Brauner, M.** See **L. Kofler**.
- Brauns, D. H.**, optical rotation and atomic dimension. IV. and V., ii, 633.
- Bray, J. L.** See **W. H. Beisler**.
- Bray, W. C.** See **R. S. Livingston**, and **A. A. Noyes**.
- Breckenridge, J. M.** See **W. M. Walker**.
- Breckpot, R.**, action of organo-magnesium compounds on nitriles; γ -ethoxybutyronitrile, i, 14.
- Bredée, H. L.** See **E. Cohen**.
- Bredemeier, H.** See **G. Tammann**.
- Bredig, G.**, and **A. von Goldberger**, example of photochemical reaction-coupling ($\text{COCl}_2 + \text{H}_2$) and the photochemical decomposition of formaldehyde, ii, 142.

- Bredig, G.**, and **L. Teichmann**, critical constants and vapour pressures of hydrogen cyanide, ii, 950.
- Bredig, M. A.** See **S. Goldschmidt**.
- Bredt, J.**, camphor-*sec.-tert.-nitrilic* and chlorocamphor-*sec.-tert.-nitrilic* acids, i, 255.
- Bredt, J.**, and **A. Ivanov**, formation of camphor-*sec.-tert.-nitrilic* chloride and chlorocamphor-*sec.-tert.-nitrilic* chloride from camphorimide by means of phosphorus pentachloride, i, 254.
- Breguet, A.** See **L. Meunier**.
- Brehme.** See **Opitz**.
- Brehme, T.**, and **P. György**, calcium fixation by animal tissues. XI., i, 717.
- Breit, G.**, polarisation of resonance radiation in weak magnetic fields, ii, 629.
- Breit, G.**, and **H. K. Onnes**, dielectric constants of liquid hydrogen and liquid oxygen, ii, 631.
- Breit, G.** See also **E. O. Hulburt**, and **A. E. Ruark**.
- Brenchley, W. E.**, and **H. G. Thornton**, relation between the development, structure, and functioning of the nodules on *Vicia faba* as influenced by the presence or absence of boron in the nutrient medium, i, 1368.
- Brennen, H.**, chemical studies on the isotopes of lead, ii, 174, 1109.
- Brennen, J. H.**, adsorption of polonium by various substances and its reversibility, ii, 770.
- Brentano, J.**, focussing method in crystal powder analysis by X-rays, ii, 483.
- Brewer, A. K.**, ionisation produced in gaseous reactions, ii, 919.
- Brewster, C. M.**, Schiff's bases from 3:5-dibromosalicylaldehyde, i, 38.
- Brewster, R. Q.** See **F. B. Dains**.
- Brezina, J.**, dropping mercury cathode. VI. Electro-deposition of manganese and the complexity of manganese ions in ammoniacal solutions, ii, 676.
- Bridel, M.**, enzymic hydrolysis of gentiacaulin; production of a xyloglucose, primeverose, i, 336.
presence of monotropitin in fresh roots of three species of *Spiraea*: *S. ulmaria*, *S. filipendula*, and *S. gigantea* (var. *rosea*), i, 347.
enzymic hydrolysis of monotropitin; production of primeverose, i, 615.
presence of large quantities of free maltose in the fresh tubers of *Umbilicus pendulinus*, DC, i, 620.
primeverose, the primeverosides, and primeverosidase, i, 760.
- Bridel, M.**, primeverosidase and primeverase in emulsin from almonds, i, 1438.
- Bridel, M.**, and **C. Charaux**, blackening of Orobanches in the course of their desiccation, i, 488.
unstable glucoside complex obtained from bark of *Rhamnus cathartica*, i, 621.
hydrolytic products of fermentation of rhamnucoside: primeverose and rhamnicogenol, i, 636.
rhamnucoside, a new glucoside, the source of China green, found in the bark of the stem of the purgative buckthorn, i, 690.
chemical composition of the bark of the purgative buckthorn (*Rhamnus cathartica*, L.), i, 1224.
- Bridel, M.**, and **P. Picard**, preparation and properties of monotropitoside, i, 1027.
- Bridge, L. A. du**, positive rays produced by ultra-violet light, ii, 251.
- Bridgman, P. W.**, thermal conductivity and thermo-electric force of single metal crystals, ii, 1136.
viscosity of liquids under pressure, ii, 1143.
- Brieger, C.** See **W. Bachmann**.
- Brieger, F.**, silicon metabolism of diatoms, i, 341.
- Briggs, D. B.**, crystalline cuprous bromide, ii, 319.
- Briggs, D. R.** See **F. N. Peters, jun.**
- Briggs, G. E.**, plant yield and intensity of external factors; Mitscherlich's "Wirkungsgesetz," i, 1222.
- Briggs, G. E.**, and **J. B. S. Haldane**, kinetics of enzyme action, i, 736.
- Briggs, G. H.**, electric charge carried by thorium-X and thorium emanation recoil atoms in gases, ii, 922.
- Briggs, S. H. C.**, potassium chlororuthenates and the co-ordination number of ruthenium, ii, 703.
- Brighton, T. B.** See **D. A. MacInnes**.
- Brill, H. C.**, properties of aryl esters and ethers of N-piperidinoalkyl compounds, i, 833.
- Brillouin, L.**, surface tension: interpretation of the Eötvös expression, ii, 496.
- Briner, E.**, **T. Egger**, and **H. Paillard**, oxidations with ozone. II. Preparation of camphor i, 274.
- Briner, E.**, **W. Plüss**, and **H. Paillard**, catalytic dehydration of phenol-alcohol systems, i, 248.
- Briner, E.**, **H. von Tscharnner**, and **H. Paillard**, oxidations with ozone. III. Preparation of methylvanillin, piperonal, and anisaldehyde, i, 1069.

- Brings, L.**, nitrogen distribution in the hydroxyproteic acid fraction of urine, i, 328.
- Brinkman, R.**, and *J. von der Velde*, quantitative investigation in biological fluids of substances with great surface activity, i, 468.
- Brinkmann, E.** See *W. Hückel*.
- Brinkworth, J. H.**, measurement of the ratio of the specific heats, using small volumes of gas; ratios of the specific heats of air and of hydrogen at atmospheric pressure and at temperatures between 20° and -183°, ii, 373.
- Brinsmaid, W.**, double-reacting turmeric paper, ii, 435.
- Brinton, P. H. M.-P.**, and *R. B. Ellestad*, determination of uranium in carnotite, ii, 72.
- Brinton, P. H. M.-P.**, and *A. E. Stoppel*, ignition of precipitates. II. Conversion of molybdenum sulphide into oxide and the volatility of molybdenum trioxide, ii, 72.
- Brinton, P. H. M.-P.** See also *A. E. Stoppel*.
- Brintzinger, H.** See *A. Gutbier*.
- Brioux, C.**, influence of urea, used as fertiliser, on the reaction of the soil, i, 491.
- Brioux, C.**, and *J. Pien*, use of the quinhydrone electrode for determination of p_H in soils, i, 1227.
- Briscoe, H. V. A.**, and *P. L. Robinson*, redetermination of the atomic weight of boron, ii, 346.
- Briscoe, H. V. A.**, *P. L. Robinson*, and *G. E. Stephenson*, electrical explosion of tungsten wires, ii, 348.
- use of fused borax in the determination of the atomic weight of boron, ii, 619.
- Briscoe, H. V. A.** See also *P. L. Robinson*, and *L. A. Sayce*.
- British Dyestuffs Corporation, Ltd.**, *J. Baddiley*, and *W. W. Tatum*, new dyes of the anthraquinone series, i, 145.
- British Dyestuffs Corporation, Ltd.**, *W. H. Perkin, jun.*, and *G. R. Clemo*, preparation of 4-tetrahydroquinolone and of intermediate products, i, 697.
- British Dyestuffs Corporation, Ltd.** See also *J. Baddiley*.
- Britton, H. T. S.**, hydrogen and oxygen electrode titrations of some dibasic acids and of dextrose, ii, 977.
- electrometric studies of the precipitation of hydroxides. I. Precipitation of magnesium, manganous, ferrous, cobalt, nickel, and thorium hydroxides by use of the hydrogen electrode, ii, 1203.
- Britton, H. T. S.**, electrometric studies of the precipitation of hydroxides. II. Precipitation of the hydroxides of zinc, chromium, beryllium, aluminium, bivalent tin, and zirconium by the use of the hydrogen electrode, and their alleged amphoteric nature, ii, 1203.
- electrometric studies of the precipitation of hydroxides. III. Precipitation in the cerite group of rare earths and of yttrium hydroxide by use of the hydrogen electrode, ii, 1204.
- electrometric studies of the precipitation of hydroxides. IV. Precipitation of mercuric, cadmium, lead, silver, cupric, uranic, and ferric hydroxides by the use of the oxygen electrode, ii, 1204.
- Brissova, L. J.** See *S. S. Nametkin*.
- Brode, R. B.**, absorption coefficient for slow electrons in gases, ii, 617.
- absorption coefficient for slow electrons in vapours of mercury, cadmium, and zinc, ii, 1020.
- Brode, R. B.** See also *J. A. Becker*.
- Brodkorb, F.** See *G. F. Hüttig*.
- Brodmann, L.** See *F. Weigert*.
- Brodsky, A.**, corresponding temperatures of solids, ii, 26.
- Bröhan, H.** See *W. Biltz*.
- Brönsted, J. N.**, theory of the velocity of chemical reactions, ii, 681.
- Brönsted, J. N.**, and *A. Delbanc*, velocity of saponification of ionic esters, ii, 684.
- Brönsted, J. N.**, and *H. C. Duus*, catalytic decomposition of nitroamide. II. Catalysis by simple amino-bases, ii, 982.
- Brönsted, J. N.**, and *C. V. King*, secondary kinetic salt effect in the case of hydroxyl ion catalysis, ii, 1171.
- Brogliè, L. de**, and *A. Dauvillier*, semi-optical lines in the X-ray spectra, ii, 458.
- Brogliè, L. de**, and *J. L. Trillat*, physical interpretation of X-ray spectra of fatty acids, ii, 640.
- Brogliè, M. de**, high-energy γ -rays and their photo-electric effect, ii, 347.
- Brogliè, M. de**, and *J. Thibaud*, exceptionally intense absorption of a radiation by the emitting atom, ii, 165.
- Brohm, C.** See *J. Tröger*.
- Broker, W.** See *R. E. Oesper*.
- Bronstein, M.**, theory of the continuous X-ray spectrum, ii, 727.
- quantum theory of the Laue effect, ii, 733.
- Brook, G. B.** See *D. M. Fairlie*.

- Brooke, W. L.**, essential oil of calantas wood, i, 418.
- Brooks, F. P.** See *A. S. Wheeler*.
- Brooks, M. M.**, permeability of living and dead cells. V. Effects of sodium hydrogen carbonate and ammonium chloride on the penetration of *Valonia* by tervalent and quinquevalent arsenic at various hydrogen-ion concentrations, i, 1004.
- Broomé, B. H.**, X-ray investigation of some mixed crystals of the systems (Na, Ag)Cl and K(Cl, Br), ii, 366.
- Brophy, D. H.**, determination of small amounts of boron in tungsten, ii, 901.
- Brosche, A.** See *F. Foerster*.
- Brotz, A.** See *E. Heuser*.
- Broughall, G. M.** See *E. G. R. Ardagh*.
- Brown, D. G.** See *W. M. Cumming*.
- Brown, E. B.** See *C. A. Nau*.
- Brown, F. E.**, distilling flask for corrosive liquids, ii, 897.
- Brown, F. L.**, and *J. W. Beams*, order of appearance of certain lines in the spark spectra of cadmium and magnesium, ii, 913.
- Brown, F. S.**, cryoscopic measurements with nitrobenzene. III. Equilibrium in nitrobenzene solution, ii, 296.
- Brown, F. S.**, and *C. R. Bury*, cryoscopic measurements with nitrobenzene. II. Variation of molecular depression with water content, ii, 32. colloid systems in nitrobenzene, ii, 1055.
- Brown, G. G.**, *E. H. Leslie*, and *J. V. Hunn*, gaseous explosions. I. Initial temperature and rate of rise of pressure, ii, 682.
- Brown, H. C.** See *T. A. Henry*.
- Brown, J.**, vapour pressure of binary mixtures, ii, 377.
- Brown, J. B.**, and *A. K. Balls*, yeast metabolism. II. Carbon dioxide and alcohol, i, 470.
- Brown, J. B.** See also *A. K. Balls*.
- Brown, M. J.**, sugar content of the blood in normal and under-nourished children, and the effect of fat on the absorption of carbohydrate, i, 994.
- Brown, R. J.**, effect of some inorganic salts on the polarisation of raw sugar solutions, ii, 372.
- Brown, R. L.**, polymerisation and oxidation of indene in the vapour phase, i, 1258.
- Browne, A. W.** See *F. Wilcoxon*.
- Brownlee, A.**, methods of fitting the formula of Michaelis in relation to the effect of hydrogen-ion concentration on enzyme action to the data, with some discussion of the results, i, 1007.
- Brownstein, H. J.** See *C. D. Hurd*.
- Bruckner, B.**, and *W. Overbeck*, ultra-filtration under pressure, ii, 529.
- Brudi, E.** See *W. Küster*.
- Brünnich, J. C.**, electrometric titration, ii, 711.
- Brugsch, T.**, and *H. Horsters*, intermediate carbohydrate metabolism in the liver. VI. Insulin; intermediate sugar of the liver and musculature, i, 208. intermediate carbohydrate metabolism in the liver. VIII. Phosphatase and phosphatase of hexosediphosphoric acid in the liver with regard to insulin, i, 483.
- Brugsch, T.**, *H. Horsters*, and *G. Shinoda*, intermediate carbohydrate metabolism in the liver. VII. Its gaseous exchange (normal, starving, insulin-treated, and depancreatized animals), i, 192.
- Brugsch, T.**, and *J. Rother*, significance of enterotropic uric acid for the physiology and pathology of uric acid metabolism, i, 860.
- Bruhat, G.**, and *M. Pauthenier*, dispersion of carbon disulphide in the ultra-violet, ii, 478. carbon disulphide band at 320m μ , ii, 837.
- Bruin, T. L. de**, and *P. Zeeman*, connexion between the spectra of argon and ionised potassium, ii, 167.
- Bruins, H. R.** See *E. Cohen*.
- Brukl, A.**, preparation of metal tellurides from hydrogen telluride and solutions of salts, ii, 895.
- Brukl, A.** See also *L. Moser*.
- Brummer, E.**, and *S. von Náráy-Szabó*, anodic purification of mercury, ii, 303.
- Brun, P.**, miscibility of mixtures of water, ethyl alcohol, and isobutyl alcohol, ii, 769.
- Brunetti, R.**, fine structure of the helium line 5876 Å., ii, 249.
- Bruni, G.**, solid solutions, ii, 380.
- Bruni, G.**, and *G. R. Levi*, solid solutions of compounds of elements of different valencies, ii, 281.
- Brunken, J.** See *A. Windaus*.
- Brunner, E.**, thermal decomposition of acetyl succinyl peroxide, i, 1236.
- Brunner, E.** See also *P. Ruggli*.
- Brunner, O.** See *E. Späth*.
- Brus, G.**, permanganic oxidation of nopinene, i, 47. action of chlorine on α -pinene, i, 821.
- Brutzkus, M.**, method of producing chemical reactions, ii, 215. realisation of chemical reactions in compressors, ii, 314.

- Bruylants, P.**, action of organo-magnesium compounds on nitriles; ethyl cyanoformate, i, 15.
isomerisation in olefinic compounds, i, 493.
- Bruylants, P.**, and **A. Christiaen**, thermochemistry of the butenonitriles, i, 797.
- Bruylants, P.**, **F. Lafortune**, and **L. Verbruggen**, determination of the atomic weight of selenium, ii, 174.
- Bružs, B.** See **M. Centnerszwer**, and **A. L. Marshall**.
- Bubam, W.** See **A. Gutbier**.
- Buchanan, C.** See **T. S. Patterson**.
- Bucherer, H. T.**, and **F. Stickel**, action of sulphites on aromatic hydroxy and amino compounds. XI. Action of phenylhydrazine-sodium hydrogen sulphite mixture on azo dyes, i, 1338.
- Buchheim, K.** See **W. Steinkopf**.
- Buchwald, E.**, oscillation-phenomena in diffraction spectra, ii, 1117.
- Buchwaldt, A.** See **G. Heller**.
- Buck, J. S.**, **W. H. Perkin, jun.**, and **T. S. Stevens**, synthesis of 2:3:10:11-bismethylenedioxyprotoberberine and 6:7:3':4'-bismethylenedioxyproto-papaverine, i, 958.
- Buck, J. S.** See also **I. M. Heilbron**.
- Buckley, H. E.**, and **W. S. Vernon**, crystal structure of magnesium fluoride, ii, 484.
crystal structures of the sulphides of mercury, ii, 1037.
- Buckley, O. E.**, and **L. W. McKeehan**, effect of tension upon magnetisation and magnetic hysteresis in "perm-alloy," ii, 945.
- Buckner, G. D.**, **J. H. Martin**, and **A. M. Peter**, calcium metabolism in the laying hen. II., i, 190.
chemistry of the oviduct of the hen, i, 1347.
effect of a calcium carbonate supplement in the diet of hens on the weight, protein content, and calcium content on the white and yolk of their eggs, i, 1497.
mode of transference of calcium from the shell of the hen's egg to the embryo during incubation, i, 1497.
- Budan.** See **R. Kremann**.
- Budde, O.**, calcium fixation in animal tissues. XII., i, 718.
- Budde, O.**, and **E. Freudenberg**, measurement of calcium-ion concentration [in blood], i, 713.
- Büchner, K.** See **D. Vorländer**.
- Bülow, C.**, detection and determination of small amounts of acetone, ii, 1210.
- Bülow, C.**, and **K. Baur**, azo compounds with ethyl diacetylsuccinate and Bülow's synthesis of substituted pyrazoles, i, 1327.
- Bülow, C.**, and **W. Spengler**, arylazo-acetylacetones and the products of their condensation and fission, i, 1102.
- Bülow, W.** See **A. Sonn**.
- Bürker, K.**, new hæmoglobinometer, i, 177.
- Bürki, F.**, anomalous rotatory dispersion, ii, 33.
- Büttgenbach, E.**, electroanalytical determination of cadmium in sulphuric acid solutions, ii, 439.
double acetates of copper and the alkali metals, i, 1035.
- Bufano, M.**, determination of dextrose in presence of sucrose in organic liquids, i, 453.
- Buffett, G. M.** See **T. J. Thompson**.
- Buffington, R. M.** See **W. M. Latimer**.
- Buhles, C.** See **S. Fränkel**.
- Buhtz, E.**, process and apparatus for carrying out chemical reactions, ii, 427.
- Buisson, H.**, and **C. Jausseran**, spontaneous reversal of rays in the neon spectrum, iii, 333.
- Bukschewski, J. D.**, determination of chlorine in benzaldehyde, ii, 1000.
- Bulger, H. A.** See **J. P. Peters**.
- Bullock, K.**, oleo-resin of Indian valerian root, i, 1294.
- Bulmer, F. M. R.**, **B. A. Eagles**, and **G. Hunter**, uric acid determinations in blood, i, 605.
- Bumstead, J. H.** See **A. R. Rich**.
- Bundesmann, H.** See **K. von Auwers**.
- Bungartz, E.**, spectra of oxygen and sulphur, ii, 609.
- Bunting, D.**, influence of lead and tin on the brittle ranges of brass, ii, 282.
- Bunting, R. W.** See **E. V. McCollum**.
- Burd, J. S.**, relation of biological processes to concentrations of cations in soils, i, 1527.
- Burd, J. S.** See also **J. C. Martin**.
- Burdick, W. L.**, some ammonio-carbonic acids and their reactions in liquid ammonia, i, 1048.
- Bureau, J.**, displacement of some organic acids from their sodium salts as shown by electrical conductivity, ii, 792.
- Burger, H. C.** See **W. J. H. Moll**, and **L. S. Ornstein**.
- Burger, W.**, exchange of chlorine between the red blood corpuscle and the surrounding solution. III. Influence of the hydrogen-ion concentration on the exchange, i, 710.
- Burgers, W. G.** See **H. J. Backer**.

- Burgess, H.**, new halogen derivatives of camphor. IV. Action of hydroxylamine on α - and α' -chlorocamphor and bromocamphor. V. Action of sodium methoxide and ethoxide on $\alpha\beta$ -dibromocamphor; formation of esters of α -bromocampholenic acid, i, 45.
- Burgess, H.**, and **T. M. Lowry**, studies of dynamic isomerism. XVI. The mutarotation of beryllium benzoylcamphor; formation of an additive compound with chloroform; the optical activity of beryllium, i, 46.
- new halogen derivatives of camphor. VI. β -Bromocamphor- α -sulphonic acid. VII. Constitution of the Reychler series of camphorsulphonic acids; experiments on chlorosulphoxides, i, 415.
- Burgess, H.** See also **J. O. Cutter**.
- Burgess, P. S.**, yield and mineral content of crop plants as influenced by those preceding, i, 1519.
- Burian, O.**, constitution of the natural humic acids, i, 372.
- Burichetti, E.** See **U. Sborgi**.
- Burk, R. E.** See **C. N. Hinshelwood**.
- Burkhardt, G. N.**, and **A. Lapworth**, theories of polar and non-polar free affinities; reply to some recent criticisms and comparisons, ii, 937.
- Burlot, E.**, theoretical force and co-volume of explosives, ii, 558.
- pressures developed in closed vessels by the combustion of explosives, ii, 1170.
- experimental determination of the force and co-volume of explosives, ii, 1170.
- Burmeister, E.** See **W. Traube**.
- Burnet, F. M.**, hydrogen peroxide and bacterial growth, i, 1117.
- effect of dyes on bacterial growth, i, 1117.
- Burns, K.**, red neon lines, ii, 1099.
- Burr, G. O.** See **H. M. Evans**.
- Burrell, R. C.**, and **T. G. Phillips**, determination of nitrate nitrogen in plants, i, 1367.
- Burt, A. W.** See **G. T. Morgan**.
- Burt, C. P.** See **H. Hibbert**.
- Burt, F. P.** See **D. H. Bangham**, and **J. T. Howarth**.
- Burt, R. C.**, constancy of total photocurrent from sodium with temperature change 20° to -190° , ii, 617.
- sodium by electrolysis through glass, ii, 921.
- Burtles, R.**, and **F. L. Pyman**, 2-amino-4:5-dimethylglyoxaline, i, 1326.
- Burtles, R.**, **F. L. Pyman**, and **J. Roylance**, relation of pilocarpidine to pilocarpine; synthesis of 1:4- and 1:5-dimethylglyoxalines, i, 696.
- Burton, E. F.**, and **J. E. Currie**, mutual action of charged particles in liquid media, ii, 531.
- Burton, H.**, and **C. S. Gibson**, preparation of arsenic acids from the corresponding chloroarsines, i, 84.
- preparation of 9-alkylcarbazoles, i, 154.
- Burton, J. Q.** See **J. M. McCandless**.
- Burwell, C. S.**, and **G. C. Robinson**, determination of oxygen and carbon dioxide in mixed venous human blood, i, 604.
- Bury, C. E.** See **E. R. Jones**.
- Bury, C. R.**, system, zinc sulphate-water, ii, 119.
- Fulcher lines in the hydrogen spectrum, ii, 1113.
- Bury, C. R.** See also **F. S. Brown**.
- Busch, M.**, determination of organically combined halogen, ii, 823.
- Busch, M.**, and **R. von Beust**, isomeric hydrazones of glyoxylic acid. II. Remarkable, different behaviour of stereoisomerides, i, 400.
- Busch, M.**, **G. Friedenberger**, and **W. Tischbein**, isomerism of hydrazones; isomeric hydrazones of phenacylamines and the determination of their configuration, i, 40.
- Busch, W.** See **O. Ruff**.
- Busse, W.**, velocity of sound and ratio of specific heats of organic liquids, ii, 373.
- law of photographic blackening for homogeneous X-rays, ii, 1080.
- Buston, H. W.** See **S. B. Schryver**.
- Butkewitsch, W.**, production of gluconic and citric acids from sucrose by moulds, i, 341.
- moulds and bacteria which utilise quinic acid, i, 1511.
- Butler, C. L., jun.**, and **R. Adams**, search in the diphenylmethane series for the isomerism characteristic of certain diphenyl derivatives, i, 1438.
- Butler, J. A. V.**, solubility, heat of solution, and lattice energy of salts, ii, 39.
- seat of the electromotive force in the galvanic cell, ii, 42.
- relation between deviations from Raoult's law and the partial heats of solution, ii, 539.
- Butmi de Katzman, V.** See **P. Petrenko-Kritschenko**.
- Byk, A.**, revised Trouton rule for the heat of vaporisation and the quantum theory, ii, 97.

- Bylinkin, I. G.** See *A. E. Tschitschibabin*.
- Bylsma, A. G.**, perfuming and flavouring substances in foods and condiments. I. Effect of ethyl acetate and other substances on the nitrogen excretion of normal dogs and those with greatly reduced thyroid glands, i, 1356.
- C.**
- Cabannes, J.**, and *J. Dufay*, measurement of the altitude of the layer of ozone in the atmosphere, ii, 998.
- Cabannes, J.**, and *J. Gauzit*, diffusion of light by methane and its gaseous homologues, ii, 1030.
- Cabrera, B.**, the constant Δ in the Weiss-Curie law, ii, 173.
- rare earths and the magneton, ii, 358.
- paramagnetism of the rare earths, ii, 618.
- calculation of atomic radii from magnetic susceptibility, ii, 624.
- magnetism and the structure of atoms and molecules, ii, 1107.
- Cabrera, B.**, and *A. Duperier*, thermal variation of magnetism of water and of some paramagnetic solutions, ii, 754.
- Cadariu, I.** See *I. Nitzescu*.
- Cadness, B. H. E.** See *H. Heap*.
- Cady, H. P.**, and *R. Taft*, electrolysis in liquid sulphur dioxide, ii, 1073.
- oxidation and reduction, ii, 1073.
- Caesar, F.** See *D. Vorländer*.
- Caglioti, V.** See *F. Zambonini*.
- Cahill, P. J.** See *H. Ryan*.
- Caille, A.**, stability of cellulose esters, i, 371.
- Caille, E.**, and *E. Viel*, transformation of iodoantimonates of nitrogenated organic bases into crystalline iodo-mercurates, i, 68.
- Cajori, F. A.**, *C. Y. Crouter*, and *R. Pemberton*, lactic acid in arthritis and rheumatoid conditions, i, 328.
- Calcagni, G.**, dichromates of ter- and sexa-valent metals, ii, 891.
- Calcott, W. S.**, *F. L. English*, and *F. B. Downing*, analysis of naphthalenesulphonic acids and naphthalene, ii, 73.
- analysis of xanthate, ii, 606.
- Calcott, W. S.**, *F. L. English*, and *O. C. Wilbur*, analysis of acetic anhydride, ii, 1007.
- Caldwell, J. S.**, effects of seasonal conditions on the chemical composition of American grape juices, i, 1368.
- Caldwell, M. L.** See *H. C. Sherman*.
- Calingaert, G.**, organic compounds of lead, i, 798.
- Callan, T.**, detection and determination of small amounts of α -naphthol in β -naphthol, ii, 444.
- Callow, A. B.**, and *M. E. Robinson*, nitroprusside reaction of bacteria, i, 478.
- Callow, E. H.**, autolysis of the muscle of the cod fish, i, 469.
- velocity of ice crystallisation through supercooled gelatin gels, ii, 777.
- Callens, J.**, methiodides of α - γ -dimethylaminopropan-8-ol, i, 1389.
- Calvert, E. G. B.**, determination of sugar in blood, i, 179.
- Calvert, S.** See *R. T. Dufford*.
- Calvin, D. B.** See *B. M. Hendrix*.
- Cambi, L.** [with *P. M. Voltolin*], reaction between arsenious anhydride and chlorine, ii, 148.
- Cameron, A. T.**, and *V. H. K. Moorhouse*, tetany of parathyroid deficiency and the calcium of the blood and cerebro-spinal fluid, i, 857.
- Cameron, D. H.**, laboratory pump, ii, 707.
- Cameron, W. H. B.**, possibility of reproducing the electrical conditions of the nitrogen afterglow, ii, 172.
- Camis, M.**, metabolism of phosphoric acid in the submaxillary gland, i, 191.
- Camp, A. F.** [determination of citric acid], ii, 246.
- Campbell, A. N.**, atomic volume of manganese, ii, 762.
- Campbell, A. N.** See also *A. J. Allmand*.
- Campbell, E. D.**, and *G. W. Whitney*, effect of changes in total carbon and in the condition of carbides on the specific resistance and on some magnetic properties of steel, ii, 274.
- Campbell, J. A.**, dissociation of oxyhaemoglobin in the tissues, i, 1481.
- Campbell, L. K.**, amino-acid content of the tubercle bacillus, i, 1511.
- alanine and histidine metabolism of the tubercle bacillus, i, 1511.
- Campbell, R.**, and *J. W. Lunn*, chlorophaeite in dolerites near Edinburgh, ii, 1093.
- Campus, A.**, origin of lactose and lactosuria in cows, i, 327.
- Canal, H.** See *E. André*.
- Canals, E.**, and *R. Genévet*, distilled water in biological work, ii, 847.
- Canals, E.**, and *M. Gidon*, absorption of potassium iodide by the skin, i, 1116.
- Canals, E.** See also *A. Astruc*.

- Cãdea**, dithymolisatin colouring matter, i, 298.
- Candelin, A. J.** See *A. Scheunert*.
- Canneri, G.**, double carbonates of guanidine with rare-earth metals, i, 524.
double acetates of rare-earth metals with organic bases, i, 525.
molybdovanadates. II., ii, 891.
- Canneri, G.**, and *L. Fernandes*, analytical separation of rare earths from uranium; alkali uranylsalicylates, ii, 71.
thermal analysis of the systems, thal-
lous sulphide-arsenic trisulphide
and thal-
lous sulphide-lead sulphide,
ii, 887.
complex sulphites and thiosulphates
of the rare-earth metals, ii, 888.
- Cantamessa, G.** See *A. Clementi*.
- Cantoni, O.**, separation of the alkalis
in silicate analysis, ii, 1001.
- Capato, E.** See *L. Ruzicka*.
- Capodacqua, A.** See *L. Vecchiotti*.
- Cappelli, G.**, lipase. II. Relationship
of lipase to predisposition to human
tuberculosis; action of lipase on
Koch's bacillus, i, 725.
- Capua, di.** See *Di Capua*.
- Cardot, H.** See *A. Blanchetière*.
- Cario, G.**, and *O. Oldenberg*, electrical
excitation of the band and line spectra
of iodine, ii, 470.
- Carius, C.** See *P. A. Thiessen*.
- Carlens, O.** See *E. M. P. Widmark*.
- Carli, F. de.**, reducibility of certain
metallic halides by means of hydro-
gen, ii, 51.
reactivity in the solid state between
acidic and basic metal oxides, ii, 670.
- Carlsahn, H.**, rare-gas nature of pseudo-
and non-electrolytes as basis for the
calculation of their m. p. and b. p.,
ii, 1044.
- Carlsahn, H.** See also *A. Hantzsch*.
- Carlton, (Miss) M.**, new peroxide of
barium, ii, 1183.
- Carlton, (Miss) M.** See also *H. B.
Baker*.
- Carneiro, V.** See *L. Panisset*.
- Carnelley, H. W.**, and *P. K. Dutt*,
2:5-iminodihydro-1:2:3-triazole. II.,
i, 165.
- Caro, L. de.**, surface tension of gelatin
solutions of different hydrogen-ion
concentration, ii, 857.
- Carobbi, G.**, double nitrates of metals of
the cerium group with copper and
with cadmium, ii, 145, 222.
double chromates of the rare earths
and alkali metals. I. Double chrom-
ates of lanthanum and potassium,
ii, 315.
- Carobbi, G.**, synthetic praseodymiferous
chlorovanadinite, ii, 582.
supposed isomorphism of uranyl com-
pounds with those of isomorph-
ogenous metals of the magnesium
group, ii, 892.
- Carobbi, G.** See also *F. Zambonini*.
- Carothers, W. H.**, and *R. Adams*, plat-
inum oxide as a catalyst in the reduc-
tion of organic compounds. VII.
Effects of numerous substances on the
platinum catalysis of the reduction of
benzaldehyde, ii, 693.
- Carr, A. R.**, *R. E. Townsend*, and
W. L. Badger, vapour pressures of
glycerol-water and glycerol-water-
sodium chloride solutions, ii, 767.
- Carr, A. R.** See also *E. H. Leslie*.
- Carr, M.** See *V. Korenchevski*.
- Carré, M. H.**, relation of pectose and
pectin in apple tissue, i, 758.
- Carrick, C. W.**, and *S. M. Hauge*, pres-
ence of vitamin-C in livers of chickens
fed on scorbutic diets, i, 617.
- Carrick, C. W.** See also *S. M. Hauge*.
- Carrière, E.**, and *Arnaud*, determination
of the boiling and condensation curves
of mixtures of hydrochloric acid and
water under a pressure of 760 mm.,
ii, 102.
- Carrière, E.**, and *E. Vilon*, action of
sulphuric acid on calcium oxalate,
ii, 206.
- Carrière, J. F.**, behaviour of oil and
oleic acid with water. IV.—VI., ii,
287.
- Carroll, B. H.**, *G. K. Rollefson*, and
J. H. Mathews, ebullioscopic mea-
surements in mixed solvents, ii, 858.
effect of a non-volatile solute on the
partial pressures of liquid mixtures
at the b. p., ii, 859.
- Carroll, J. A.**, series relations in the
spectra of doubly ionised gallium and
indium, ii, 1101.
- Carroll, M. F.** See *J. R. Partington*.
- Carroll, W. R.** See *E. B. Fred*.
- Carson, C. M.**, determination of aniline
in aqueous solutions, ii, 447.
- Carst, A.**, continuous hydrogen spec-
trum, ii, 333.
- Carter, J. M.** See *H. J. Lucas*.
- Carter, S. R.**, and *F. James*, electro-
chemical aspects of the oxidising
properties of sulphur dioxide, ii, 134.
- Carter, S. R.**, and *F. M. Lea*, diffusion
potential and transport number of
hydrochloric acid in concentrated
solution, ii, 300.
influence of acid concentration on the
oxidation-reduction potential of
cuprous and cupric chlorides, ii, 403.

- Carter, S. R.** See also *G. T. Morgan*.
- Carver, E. K., and H. Folts**, plasticity of cellulose in "cuprammonium hydroxide," ii, 662.
- Carver, E. K., and F. Hovorka**, capillary rise of water in tubes of various metals, ii, 647.
- Carver, E. K.** See also *H. Crouch*, and *S. E. Sheppard*.
- Cary, A. F., and E. K. Rideal**, behaviour of crystals and lenses of fats on the surface of water, ii, 388.
behaviour of crystals and lenses of fats on surface of water. I. Mechanism and rate of spreading, ii, 1046.
behaviour of crystals and lenses of fats on surface of water. II. Effect of temperature on the equilibrium pressure, ii, 1047.
behaviour of crystals and lenses of fats on surface of water. III. Effect of polar group on equilibrium pressure, ii, 1048.
- Case, F. H.**, derivatives of *p*-hydroxymethylbenzoic acid. I. Esters, i, 815.
- Casey, G. U.** See *J. R. Williams*.
- Cash, L. S., and C. E. Fawsitt**, determination of cineole in essential oils by Cocking's process, ii, 75.
- Caspar, C.** See *V. Auger*.
- Caspari, W. A.**, system, sodium carbonate-sodium sulphate-water, ii, 123.
- Caspers, F.** See *P. Lipp*.
- Cassel, H.**, theory of metallic conductivity, ii, 942.
- Cassella & Co., L.**, preparation of a new arsenic compound of the aromatic series, i, 172.
preparation of condensation products of the indophenol type, i, 397.
new pharmaceutical products [nitro- and amino-3-chloro-4-hydroxyphenylarsinic acid], i, 1470.
arseno compounds, i, 1471.
- Castoro, N.**, the γ -galactan present in the seeds of *Cicer arietinum* and its molecular constitution, i, 1043.
constitution of lupeose, i, 1244.
- Catalán, M. A.**, spectrum of iron, ii, 167.
structure of cobalt spectrum, ii, 611.
structure of the spectrum of scandium. II., ii, 724.
- Cathala, J.**, mechanism of photosynthesis of hydrogen chloride in the visible spectrum, ii, 812.
- Cattelain, E.**, use of hydrazine sulphate in iodometry, ii, 1197.
- Caulaert, V.** See *L. Blum*.
- Cauquil, (Mlle.) G.**, thermochemical study of the sodium derivatives of cyclohexanol, i, 657.
viscosity and surface tension during esterification, ii, 964.
- Caven, R. L., and T. C. Mitchell**, equilibrium in systems of the type $\text{Al}_2(\text{SO}_4)_3\text{-M''SO}_4\text{-H}_2\text{O}$. I. Aluminium sulphate-copper sulphate-water and aluminium sulphate-manganous sulphate-water at 30° , ii, 396.
- Cecchetti, B.**, certain xanthates, i, 503.
- Cecchetti, B.** See also *G. Rossi*.
- Centnerszwer, M., and B. Bruzs**, stepwise dissociation of magnesium carbonate, ii, 206.
velocity of decomposition of solids. I. Dissociation of magnesium carbonate, ii, 685.
thermal decomposition of silver carbonate, ii, 803.
- Centnerszwer, M., G. Falk, and A. Awerbuch**, dissociation of lead carbonate, ii, 400.
- Centnerszwer, M., and C. Strenk**, preparation and properties of disulphur difluoride, ii, 701.
- Cerecedo, L. R., and C. P. Sherwin**, comparative metabolism of aromatic acids. VII. Fate of *p*-chloro-, *p*-bromo-, and *p*-amino-acids, i, 100.
- Cerezo, J.** See *J. Pascual Vila*.
- Cerighelli, R.**, indole in the flowers of Spanish jasmine [*Jasminum grandiflorum*, L.], i, 621.
- Cha, C.**, incident and emergent velocities of photo-electrons emitted from thin platinum films, ii, 476.
- Chaborski, G.** See *G. G. Longinescu*.
- Chabot, G.**, volumetric determination of the reaction of a medium at true neutrality, ii, 899.
- Chadwell, H. M.** See *T. W. Richards*.
- Chadwick, J.** See (*Sir*) *E. Rutherford*.
- Chakravarti, D. N., and N. R. Dhar**, fluorescence and chemical change, ii, 629.
- Chakravarti, G. C.**, colour of complex diazoles. I., i, 162.
dyes derived from oxalyldibenzyl ketone. I. Azine and azonium derivatives, i, 1330.
- Chakravarti, G. C., and I. S. Gupta**, colour of complex diazoles [iminazoles]. II., i, 980.
- Chakravarty, J. N.** See *J. C. Ghosh*.
- Chakravarty, K. M., and J. C. Ghosh**, catalytic formation of methane from carbon monoxide and hydrogen. I., ii, 1175.

- Chakravarty, K. M.**, and **J. C. Ghosh**, catalytic formation of methane from carbon monoxide and hydrogen. II. Production of fuel gases rich in methane, ii, 1175.
- Chalkley, L., jun.**, mercurisation of methylene-blue, i, 1108.
- Challenger, F.**, and **T. H. Bott**, interaction of thiocyanogen with unsaturated compounds, i, 936.
- Challenger, F., J. R. A. Jinks**, and **J. Haslam**, sulphur compounds of Kimberidge shale oil. I., i, 282.
- Challenger, F.**, and **J. F. Wilkinson**, orientation of derivatives of triphenylphosphine oxide, i, 172.
- Chamberlin, D. S.**, and **D. M. Newitt**, apparatus for accurate analysis of small quantities of gas, ii, 710.
- Chambers, I. F.** See **E. Cherbuliez**.
- Chambers, R. F.**, and **P. C. Scherer**, benzyl- ψ -thiocarbamide salts of naphthalenesulphonic acids, i, 127.
- Chambers, W. H.**, and **H. J. Deuel, jun.**, animal calorimetry. XXX. Metabolism of glycerol in phloridzin diabetes, i, 1352.
- Chambers, W. H.** See also **H. J. Deuel, jun.**
- Chamié, C.** See **I. Curie**.
- Chandler, J.** See **A. W. Rowe**.
- Chandrasena, J. P. C.**, **C. K. Ingold**, and **J. F. Thorpe**, structure of α -campholytic acid, i, 1275.
- Channon, H. J.**, cholesterol synthesis in the animal body, i, 1001.
- Chapin, R. M.**, does nicotine combine with calcium ions? i, 697.
- Chapman, A. W.**, imino-aryl ethers. III. Molecular rearrangement of *N*-phenylbenziminophenyl ether, i, 1400.
- Chapman, D. L.**, some conclusions from recent work on photochemistry, ii, 1078.
- Chapman, D. L., J. E. Ramsbottom**, and **C. G. Trotman**, union of hydrogen and oxygen in presence of silver and gold, ii, 310.
- Chapman, E.**, and **H. Stephen**, condensation of β -chloro- and β -ethylcarbonato-propionitriles with resorcinol, i, 669.
preparation of phthalamic acids and their conversion into anthranilic acids, i, 1151.
- Chapman, R. E.**, carbohydrate enzymes of some starch-free monocotyledons, i, 215.
- Chapman, S.**, and **A. E. Ludlam**, vibration of the carbonate ion, ii, 1025.
- Chapman, S.** See also **W. L. Bragg**.
- Charaux, C.**, datiscin, a glucoside obtained from *Datisca cannabina*, i, 823.
- Charaux, C.**, and **P. Delauney**, occurrence of loroglossoside (loroglossin) in *Listera ovata*, *R. Br.*, and *Epipactis palustris*, Crantz, and its reactions, i, 874.
- Charaux, C.** See also **M. Bridel**.
- Charles, (Mlle.).** See **L. Randoin**.
- Charlton, J.**, buffer action of some Burma soils, i, 768.
- Charonnat, R.**, potassium chlororuthenites, ii, 586.
- Charrier, G.**, so-called *vic*-2-*N*-aryltriazolephthalonic acids, i, 76.
- Charrier, G.**, and **A. Beretta**, action of nitrosobenzene on *o*-nitroaniline, i, 21.
preparation of diphenic acid, i, 34.
oxidation of *o*-quinones, i, 271.
nitroazobenzenes, i, 316.
- Charrier, G.**, and **G. B. Crippa** [with **V. Toia**, and **M. Bianchessi**], oxidation of arylazo- β -naphthylamines in acetic acid solution by means of hydrogen peroxide, i, 589.
- Charrier, G.**, and **M. Gallotti**, destruction of the $\alpha\beta$ -naphthatriazole nucleus, i, 589.
- Charrier, G.**, and **M. Gallotti** [with **C. Vitale**], phenylene-2-aryltriazolylene-glycollic acids, i, 306.
- Charriou, A.**, catalytic action of alumina containing other substances, ii, 216.
- Chassevent, L.**, velocities of crystallisation of gypsum and preparation of a plaster of great resistance to compression, ii, 559.
- Chattaway, F. D., S. J. Ireland**, and **A. J. Walker**, colours produced by the action of sulphuric acid on some hydrazones, i, 1194.
- Chattaway, F. D.**, and **G. D. Parkes**, action of azides on toluquinone, i, 985.
- Chattaway, F. D.**, and **C. R. N. Strouts**, halogen-substituted 1-arylpyrazolones, i, 71.
- Chattaway, F. D.**, and **A. J. Walker**, compounds formed by the action of bromine on benzaldehydephenylhydrazones, i, 929.
action of halogens on *m*- and *p*-nitrobenzaldehydephenylhydrazones, i, 1193.
- Chatterjee, B. C.** See **R. L. Datta**.
- Chatterji, A. C.** See **N. R. Dhar**.
- Chaturvedi, R. K.**, serious difficulty in the determination of the number of vibrations radiated from a Bohr atom, ii, 926.
- Chaudron, G.** See **H. Forestier, J. Valentin**, and **X. Waché**.

- Chaudun, (Mlle.) A.** See *H. Colin*.
- Chaussin, J.**, soluble material and insoluble tissues during the development of wheat; influence of a complete mineral fertiliser, i, 623.
- Cheadle, F. M.**, insulin. I. Preparation and standardisation of insulin. II. Effect of pH on activity of insulin subjected to high temperatures, i, 106.
- Chelle, L.**, and *M. Rangier*, form in which uric acid occurs in urines containing acid urates, i, 187.
forms in which uric acid is eliminated in the urine, i, 187.
- Chemische Fabrik auf Aktien (vorm. E. Schering)**, preparation of homologues of 2-aminopyridine, i, 301.
preparation of alkyl homologues of pyridine, i, 431.
preparation of 2:6-diaminopyridine, i, 589.
preparation of *N*-2-pyridylpyrroles, i, 1329.
preparation of quinoline-4-aldehyde and its 2-aryl derivatives, i, 1452.
- Chemische Fabrik Flora**, piperonyl bromide, i, 1413.
- Chemische Fabrik Griesheim-Elektron**, preparation of dyes insoluble in water, i, 587, 599.
azo dyes, i, 598, 599.
- Chemische Fabrik von F. Heyden**, preparation of organic arsenic-antimony compounds, i, 85.
preparation of arsenic-antimony compounds, i, 86.
preparation of secondary and tertiary aromatic antimony compounds, i, 86.
preparation of monoarylantimony compounds, i, 86.
preparation of diarylantimony compounds, i, 86, 87.
preparation of complex compounds of aromatic stibinic acids, i, 87.
alkali salts of aromatic *N*-halogenosulphonamides, i, 380.
derivatives of *ar*-tetrahydro- β -naphthol, i, 1407.
- Chemische Fabrik vorm. Sandoz**, preparation of the alkaline-earth salts of alkylsulphonic acids, i, 1377.
- Chemische Fabriken vorm. Weiler-ter Meer**, derivatives of cinnamic acid, i, 1418.
- Chemische Werke Grenzach**, alkylamino esters of tropic and acyltropic acids, i, 31.
- Chen, K. K.**, and *C. F. Schmidt*, action of ephedrine, the active principle of the Chinese drug, *Ma Huang*, i, 194.
- Chenault, R. L.** See *P. D. Foote*, and *A. E. Ruark*.
- Chenel, L.** See *M. Marqueyrol*.
- Cheramy, P.**, colorimetric determination of solutions of novocaine, ii, 247.
- Cherbuliez, A.** See *J. Chevalier*.
- Cherbuliez, E.**, and *I. F. Chambers*, ring formation from asparagine; derivatives of aminosuccinimide, i, 1046.
- Cherbuliez, E.**, and *G. Sulzer*, derivatives of formaldehyde and succinimide, i, 1252.
- Cherbuliez, E.**, and *R. Wahl*, determination of amino-acids formed by hydrolysis of proteins. I. Determination in groups, ii, 1211.
- Cherpillod, P.** See *F. Kehrman*.
- Chertcoff, M.** See *M. T. Bogert*.
- Chesnut, V. K.** See *F. B. Power*.
- Chevalier, J.**, and *A. Cherbuliez*, chloralose and parachloralose, i, 467.
- Chevallier, K.**, magnetic ferric oxide, ii, 639.
- Chevenard, P.**, dilatometric anomaly of α -solid solutions of copper and aluminium, ii, 768.
reversible anomaly of copper-nickel alloys in the paramagnetic region, ii, 851.
- Cheymol, J.** See *E. Gley*, and *H. Hérissé*.
- Chibnall, A. C.**, and *L. S. Nolan*, a protein from the leaves of the alfalfa plant; a protein from the leaves of *Zea mays*, i, 215.
- Chick, H.**, and *M. Tazelaar*, effect on the growth of rats receiving a diet deficient in fat-soluble vitamins of exposing their environment to the emanation from radium bromide, i, 211.
- Chikano, M.** See *Y. Kotake*.
- Child, W. C.**, and *H. Adkins*, condensation of aldehydes to esters by alkoxides, i, 632.
- Childs, W. H. J.**, peculiarity of some red neon lines, ii, 339.
- Chinoïn Fabrik Chemisch-pharmazeutischer Produkte**, preparation of (iodo)-esters of carbamic acid and of acylated carbamic acids (allophanic acid, acetylcarbamic acid, etc.), i, 13.
- Chipman, J.**, solubility of benzoic acid in benzene and in toluene, ii, 30.
- Chirvinski.** See *Tschirvinski*.
- Chlopin, W.**, fractional crystallisation of radioactive substances, ii, 438.
- Chodat, F.**, cell permeability. I. Swelling of gelatin under the influence of carbamide, ii, 521.
- Choucroun, (Mlle.).** See *J. Perrin*.

- Choufoer, H. F.**, disaccharins, i, 896.
Chown, H. B. See *L. E. Holt, jun.*
Christen, A. See *F. Fichter.*
Christensen, L. M., and *E. I. Fulmer*, adjustment of p_H of culture media under sterile conditions, i, 1216.
Christiaen, A., action of organo-magnesium compounds on nitriles; α -aminonitriles, i, 23.
Christiaen, A. See also *P. Bruylants.*
Christiani-Kronwald, A. See *F. Feigl.*
Christiansen, J. A., velocity of bimolecular reactions in solutions, ii, 47.
 burette for micro-gas analysis, ii, 593.
Christiansen, J. A. See also *G. von Hevesy.*
Christiansen, W. G., nitration of *p*-carboxyphenoxyacetic acid, i, 817.
 p-arsinobenzeneazophthaleins, i, 1192.
Christiansen, W. G., and *A. J. Norton*, antimonyl tartrates of some organic bases, i, 654.
Christiansen, W. G., *A. J. Norton*, and *J. B. Shohan*, sulphur content of arspenamine [salvarsan] and its relation to the mode of synthesis and the toxicity, i, 1471.
Christie, (Miss) R. K. See *G. J. Fowler.*
Christmann, F. See *S. Goldschmidt.*
Chrometzka, F. See *E. Schmitz.*
Chrzaszcz, T., determination of starch using malt, ii, 74.
Chrzaszczewska, (Mlle.) A., the thiophens and intermediate products for their synthesis, i, 956.
Chrzaszczewska, (Mlle.) A., and *(Mlle.) M. Biata*, influence of acetyl chloride on the nitration of acetanilide and dimethylaniline, i, 1058.
Chuckubutti, B. N., colours shown by Nobili's rings, ii, 744.
Chudnoff, M. See *L. Bauman.*
Chudožilov, L. K., preparation of symmetrical polynitro derivatives of the dinaphthyls by the action of finely-divided copper on halogenated nitronaphthalenes, i, 903.
Chudožilov, L. K. See also *V. Vesely.*
Cikrtová, M., and *K. Sandera*, theory of the titration of boric acid, ii, 714.
Cittart, P. H. van, measurement of the fine structure of hydrogen lines with the Lummer-Gehrke plate, ii, 909.
Ciusa, R., some substances analogous with graphite, i, 1083.
Ciusa, R., and *A. Galizzi*, constituents of lignites. III., i, 1045.
Ciusa, R., and *E. Parisi*, aldoxime peroxides. III., i, 1070.
Claassen, A., crystal structure of alkali monosulphides. I., ii, 845.
Claisen, L., preparation of chromans, i, 277.
 phenols alkylated in the nucleus, i, 1410.
Claisen, L. [with *F. Kremers, F. Roth*, and *E. Tietze*], *C*-alkylation (nucleus alkylation) of phenols, i, 656.
Claisen, L., and *E. Tietze*, mechanism of the transformation of phenyl allyl ethers, i, 389.
Clapham, H. W. See *T. J. Nolan.*
Clare, N. D. See *J. W. Shipley.*
Clark, A. L., definition of a perfect gas, ii, 495.
 viscosity of ethyl ether near the critical point, ii, 499.
 polarisation capacity and electrical double layers, ii, 673.
Clark, C. H. D. See *J. C. Philip.*
Clark, E., application of sodium hyposulphite in qualitative organic analysis, ii, 332.
Clark, E. P., and *J. B. Collip*, determination of calcium in blood serum by the Tisdall method, i, 713.
Clark, E. P. See also *J. B. Collip.*
Clark, F. E. See *J. W. Farren.*
Clark, G. L., and *W. Duane*, relative intensities of fluorescent and scattered X-rays, ii, 336.
Clark, G. L., *P. C. McGrath*, and *M. C. Johnson*, effect of X-rays on the platinum catalyst in the contact sulphuric acid reaction, ii, 1176.
Clark, G. L. See also *W. D. Harkins.*
Clark, H., and *J. H. Northrop*, inactivation of trypsin by X-rays, i, 1361.
Clark, L. M., benzthiazole series. III. Pseudo-bases of the 1-substituted benzthiazole quaternary salts, i, 841.
Clark, M., recent studies on reversible oxidation-reduction in organic systems, ii, 673.
Clark, W. M., *B. Cohen*, and *H. D. Gibbs*, oxidation-reduction. VIII. Methylene-blue, ii, 1164.
Clark, W. M., and *A. T. Merrill*, production of gelatinase by *Proteus*, i, 1511.
Clark, W. M. See also *B. Cohen.*
Clarke, B. L., swelling. I. Swelling of agar-agar gels as a function of water content before swelling, ii, 863.
Clarke, B. L. See also *J. Kendall*, and *D. T. MacDougal.*
Clarke, F. W., composition of the river and lake waters of the United States, ii, 323.
Clarke, F. W., and *H. S. Washington*, composition of the earth's crust, ii, 63.

- Clarke, *G. R.*, and *C. G. T. Morison*, losses of ammonia from soil by volatilisation, i, 491.
- Classen, *A.*, and *G. Strauch*, atomic weight of bismuth, ii, 175.
- Clausen, *S. W.*, excretion of organic acids after pneumonia, i, 1491.
- Clay, *J.*, helium in earth gases of petrol sources, ii, 1195.
- Claydon, *D.* See *H. G. Barbour*.
- Clemens, *F.* See *J. Meyer*.
- Clementi, *A.*, and *G. Cantamessa*, enzymic deamination of asparagine, i, 200.
- Clemo, *G. R.* See **British Dyestuffs Corporation, Ltd.**
- Clerici, *E.*, fusion mixture for isopycnometric analysis, ii, 594.
- Clews, *F. H.*, interaction of sodium chloride and alumina, ii, 577.
- Clibbens, *D. A.*, and *A. Geake*, chemical analysis of cotton. II. Determination of copper number, ii, 906.
- Clibbens, *D. A.* See also *C. Birtwell*.
- Clifford, *P. H.*, and *M. E. Probert*, constituents of the wax of American (Mississippi Delta) cotton, i, 879.
- Clifford, *W. M.*, effect of halogen salts on salivary digestion, i, 738.
- Close, *H. W.* See *H. S. Taylor*.
- Clough, *R. W.* See *C. R. Fellers*.
- Clutterbuck, *P. W.*, γ -hydroxystearic acid, i, 5.
- Clutterbuck, *P. W.*, and *H. S. Raper*, oxidation of the ammonium salts of normal saturated fatty acids and its biological significance, i, 882.
- Cobb, *J. W.* See *H. S. Houldsworth*.
- Cobenzi, *A.*, preparation of mauveine and various bases, i, 436.
- Coblens, *M.*, and *J. K. Bernstein*, titanous chloride and nitric acid, ii, 804.
- Coblentz, *W. W.*, and *H. R. Fulton*, radiometric investigation of the germicidal action of ultra-violet radiation, i, 616.
- Coehn, *A.*, streams of gas bubbles directed by electrolysis, ii, 1165.
- Coehn, *A.*, and *G. Jung*, influence of aqueous vapour pressure and wavelength on the photochemical formation of hydrogen chloride, ii, 142.
- Coffey, *S.*, mercuration of aromatic substances. I. Toluene, i, 844.
- Coffignier, *C.*, solutions of lead resinsates. I., i, 1294.
- Cofman, *V.*, electrical dispersion of liquids, ii, 1060.
- Coghill, *R. D.*, hydantoins. XLII. Method of synthesising 1:5-diarylhydantoins: 1:5-di(*p*-hydroxyphenyl)-hydantoin, i, 583.
- Coghill, *R. D.*, and *T. B. Johnson*, hydantoins. XLI. Synthesis of hydantoins containing phenolic groups in the glyoxaline nucleus, i, 582.
- Coghill, *R. D.* See also *T. B. Johnson*.
- Cohen, *B.*, *H. D. Gibbs*, and *W. M. Clark*, oxidation-reduction. VI. Indophenols; (A) dibromo-substitution products of phenolindophenol; (B) substituted indophenols of the *o*-type; (C) miscellaneous, ii, 25.
- Cohen, *B.* See also *W. M. Clark*.
- Cohen, *E.*, metastability of matter and physical constants, ii, 1138.
- Cohen, *E.*, and *J. C. van der Bosch*, piezochemical studies. XXVIII. Solubility determination at high pressures by means of conductivity determination, ii, 283.
- Cohen, *E.*, and *H. L. Bredée*, heats of solution of enantiotropic modifications (of ammonium nitrate) at the transition point, ii, 976.
- Cohen, *E.*, and *H. R. Bruins*, precision method for the determination of diffusion coefficients in any solvent. II., ii, 28.
- piezochemical studies. XXVII. Relation between diffusion-velocity, viscosity, and external pressure, ii, 280.
- influence of pressure on velocity of diffusion of metals in mercury, ii, 648.
- potentiometric measurement of velocities of diffusion of metals in mercury, ii, 648.
- Cohen, *E.*, and *W. D. Helderman*, metastability of elements and compounds as a result of enantiotropy and monotropy. VIII., ii, 23.
- Cohen, *E.*, *W. D. Helderman*, and *A. L. T. Moesveld*, true specific heats of salt solutions (cadmium iodide, ammonium nitrate, and zinc sulphate), ii, 126.
- calorimeter for the electrical adiabatic determination of heats of solution, ii, 151.
- Cohen, *E.*, and *C. W. G. Hetterschij*, solubility curves of zinc sulphate, ii, 652.
- Cohen, *E.*, *W. A. T. de Meester*, and *A. L. T. Moesveld*, apparatus for the accurate determination of solubilities, ii, 151.
- piezochemical studies. XXVI. Influence of pressure on solubility in the system, naphthalene-tetrachloroethane, ii, 190.
- influence of pressure on the solubility of substances. V. The system, naphthalene-tetrachloroethane, ii, 352.

- Cohen, E.**, and **A. L. T. Moesveld**, metastability of elements and compounds as a result of enantiotropy and monotropy, ii, 374, 950.
equilibrium in the system, zinc sulphate-water, ii, 652.
- Cohen, E.**, **A. L. T. Moesveld**, and **W. D. Helderman**, electrical, adiabatic calorimeter, and its use in the determination of heats of solution, ii, 402.
- Cohen, H.**, determination of uric acid by Benedict's method, i, 184.
- Cohen, I.**, occurrence of diastase in the cerebrospinal fluid, i, 721.
- Cohen, J. B.** See **E. J. Wayne**.
- Cohen, W. D.** See **J. Böeseken**.
- Cohn, E. J.**, **J. L. Hendry**, and **A. M. Prentiss**, physical chemistry of proteins. V. Molecular weights of proteins. I. Minimal molecular weights of certain proteins, ii, 641.
- Colacicchi, U.** See **G. Plancher**.
- Colani, A.**, acid uranyl acetate, i, 5.
uranyl oxalate, i, 1235.
action of sodium carbonate on phosphates, ii, 1001.
- Colbert, J. C.** See **L. C. Raiford**.
- Colby, W. F.**, use of half-quantum numbers in interpretation of hydrogen chloride absorption bands, ii, 1114.
- Coles, H. W.** See **L. A. Congdon**.
- Colin, H.**, origin of levulosans in plants, i, 618.
formation, distribution, and circulation of inulin in the stem of the artichoke, i, 620.
- Colin, H.**, and (*Mlle.*) **A. Chaudun**, constant of hydrolysis of sucrose, i, 233.
- Colin, H.**, and **A. Grandsire**, mineral matter in green and in chlorotic leaves, i, 1123.
- Collander, R.**, permeability of the copper ferrocyanide membrane to acids, and the action of protoplasm as an ultrafilter, ii, 201.
- Collard, E., jun.**, keeping properties of tincture of iodine, ii, 1168.
keeping properties of standard sodium thiosulphate solution, ii, 1168.
- Collazo, J. A.**, **M. Händel**, and **P. Rubino**, insulin. II., i, 343.
- Collazo, J. A.**, and **I. Lewicki**, effect of insulin on the lactic acid in the blood, i, 870.
lactic acid metabolism in diabetes and the effect of insulin, i, 1364.
- Collazo, J. A.**, and **J. Supniewski**, effect of insulin and other substances on lactic acid metabolism, i, 342.
- Collazo, J. A.** See also **W. Arnoldi**.
- Collenberg, O.**, and **B. Andersen**, electrolytic oxidation of double cyanides of quadrivalent molybdenum, ii, 1165.
- Collenberg, O.**, and **J. Backer**, electrolytic reduction of tungstic acid in hydrochloric acid solution, ii, 571.
- Collenberg, O.**, and **K. Wilson**, electrolytic reduction of tungstic acid in presence of oxalic acid, ii, 1166.
- Colles, W. M.**, and **C. S. Gibson**, α - and β -naphthalenesulphonylalanines, i, 137.
- Collie, J. N.**, reactions of triethylphosphine, i, 797.
- Collie, J. N.**, and **G. Bishop**, nitro- and amino-ethoxylutidine, i, 974.
- Collinet, M.** See **A. Perot**.
- Collingwood, B. J.**, method of transport of oxidised carbon from the tissues to the blood, i, 451.
- Collins, A. M.** See **W. A. Jacobs**.
- Collins, E. M.** See **A. W. C. Menzies**.
- Collins, G. E.**, swelling of cotton cellulose. III. Cotton hairs in solutions of lithium, rubidium, and caesium hydroxides, ii, 781.
- Collins, G. E.**, and **A. M. Williams**, swelling of cotton cellulose. II. Cotton hairs in solutions of potassium hydroxide, ii, 781.
- Collins, H.**, structure of chromium, ii, 18.
structure of barium, ii, 623.
structure of strontium, ii, 733.
active hydrogen, ii, 842.
structure of zinc, ii, 926.
structure of magnesium, ii, 1023.
structure of cadmium, ii, 1112.
- Collins, W. D.**, **H. V. Farr**, **J. Rosin**, **G. C. Spencer**, and **E. Wichers**, recommended specifications for analytical reagent chemicals, ii, 899.
- Collip, J. B.**, internal secretion of the parathyroid glands, i, 1364.
- Collip, J. B.**, and **E. P. Clark**, physiological action of parathyroid hormone, i, 1017.
- Collip, J. B.**, **E. P. Clark**, and **J. W. Scott**, extraction of a parathyroid hormone; effect of parathyroid hormone on normal animals, i, 754.
- Collip, J. B.** See also **E. P. Clark**.
- Colson, A.**, conditions of maximum solubility: gypsum, ii, 37.
displacement of the maximum solubility and the existence of solubility constants, ii, 121.

- Comber, N. M.**, rôle of the electro-negative ions in the reactions between soils and electrolytes, i, 219.
- Combes, R.**, descent of nitrogenous substances in leaves towards the trunk during autumnal fading, i, 1023.
does light directly effect the decomposition of chlorophyll in leaves in autumn? i, 1120.
- Comella, G.**, quantitative variations of homogeneous mixtures of two salts and a new indirect method of quantitative analysis, ii, 714.
- Comley, M. A.** See *C. E. Wood*.
- Compagnie Nationale de Matières Colorantes et de Produits Chimiques**, preparation of perylene, i, 21.
- Compton, A.** See *G. Bertrand*.
- Compton, A. H.**, and *J. A. Bearden*, effect of a surrounding box on the spectrum of scattered X-rays, ii, 867.
- Compton, A. H.**, and *R. L. Doan*, X-ray spectra from a ruled reflection grating, ii, 1105.
- Compton, A. H.**, and *A. W. Simon*, measurements of β -rays associated with scattered X-rays, ii, 347.
directed quanta of scattered X-rays, ii, 1034.
- Compton, A. H.**, and *Y. H. Woo*, wavelength of molybdenum K α rays scattered by light elements, ii, 1128.
- Compton, A. H.** See also *O. K. DeFoe*.
- Compton, K. T.**, production of atomic nitrogen and its spectrum, ii, 910.
- Compton, K. T.**, and *C. Eckart*, diffusion of electrons against an electric field in the non-oscillatory abnormal low-voltage arc, ii, 253.
- Compton, K. T.**, *L. A. Turner*, and *W. H. McCurdy*, striated glow discharge in mercury vapour, ii, 86.
- Compton, K. T.**, and *C. van Voorhis*, probability of ionisation of gas molecules by electron impacts, ii, 1106.
- Compton, K. T.**, and *C. T. Zahn*, electric moment of gaseous hydrogen chloride and hydrogen bromide molecules, ii, 1118.
- Compton, K. T.** See also *W. H. McCurdy*, and *L. A. Turner*.
- Conant, J. B.**, and *L. F. Fieser*, methæmoglobin, i, 455.
determination of methæmoglobin in the presence of its cleavage products, i, 456.
- Conant, J. B.**, and *R. E. Hussey*, relation between the structure of organic halides and the speeds of their reaction with inorganic iodides. II. Alkyl chlorides, i, 493.
- Conant, J. B.**, *W. R. Kirner*, and *R. E. Hussey*, relation between the structure of organic halides and the speeds of their reaction with inorganic iodides. III. Influence of unsaturated groups, i, 494.
alternating polarity in chain compounds, i, 803.
- Conant, J. B.**, and *R. E. Lutz*, unsaturated 1:4-diketones. I. Halogen derivatives of dibenzoylethylene and related substances, i, 681.
- Conant, J. B.**, and *A. W. Sloan*, dissociation into free radicals of substituted dixanthyls. I. Dibenzyl- and dibutyl-dixanthyl, i, 955.
- Conant, J. B.**, *L. F. Small*, and *B. S. Taylor*, electrochemical relation of free radicals to halochromic salts, ii, 874.
- Condorelli, L.**, combined sugar in blood; methods for micro-determination; conditions in normal individuals; glycolysis and combined sugar, i, 714.
- Congdon, L. A.**, *W. B. Crabtree*, *H. W. Coles*, *L. L. Smith*, and *M. L. Vehalge*, critical studies on methods of analysis. XIV. Chlorine, ii, 65.
- Congdon, L. A.**, *A. B. Guss*, and *F. A. Winter*, critical studies on methods of analysis. XVI. Zinc, ii, 1002.
- Congdon, L. A.**, and *G. Vanderhook*, critical studies on methods of analysis. XV. Magnesium, ii, 601.
- Conklin, O. E.**, microturbidimeter, ii, 708.
- Connell, S. J. B.**, colorimetric determination of lycopin, i, 214.
- Conolly, E. J. V.**, homologues of 2:2'-diquinolyl, i, 1329.
- Constable, F. H.**, catalytic action of copper. VI. Reproducibility of the catalyst, and of the periodic change in its activity, and the activation of the catalyst by alternate oxidation and reduction, ii, 311.
catalytic action of copper. VII. Effect of pressure on the rate of dehydrogenation of alcohols, ii, 311.
mechanism of catalytic decomposition, ii, 804.
effect of poisonous substances and mixed vapours on catalytic activity, ii, 881.
effect of diluents on the initial stages of catalytic action, ii, 983.
- Constable, F. H.** See also *W. G. Palmer*.
- Constantino, A.**, occurrence of sugars in muscle juice, i, 720.
- Contardi, A.**, phosphoric derivatives of the inositol of *Hevea brasiliensis*, i, 277.

- Conway, A. W.**, quantum explanation of the Zeeman effect, ii, 830.
- Cook, D. H.**, temperature coefficients of enzymic activity and heat destruction of pancreatic and malt amylases, i, 1358.
- Cook, G.** See *L. J. Bircher*.
- Cook, J. W.** See *E. de B. Barnett*.
- Cook, K. G.** See *W. C. Rose*.
- Cook, W. A.** See *R. E. Oesper*.
- Cooke, W. H., I. M. Heilbron, and G. H. Walker**, meso-thioanthracene derivatives. II. Dianthranyl disulphide and dianthranyl tetrasulphide, i, 1410.
- Coombs, H. I., and T. S. Hele**, mercapturic acid synthesis in the dog, i, 1496.
- Cooper, E. A.**, action of paraldehyde on proteins and lipins, i, 91.
- Cooper, E. A., and S. D. Nicholas**, solubility of proteins and proteoses in aldehydes and other organic solvents, ii, 955.
- Cooper, E. A., D. L. Woodhouse, and G. E. Forstner**, conditions affecting bactericidal power, i, 749.
- Cooper, E. A.** See also *G. T. Morgan*.
- Cooper, N. C.**, f. p. of *p*-dichlorobenzene, i, 800.
- Cooper, R. A.**, platinum and palladium dimethylglyoximes, ii, 827.
- Cooper, S. R.** See *M. L. Nichols*.
- Coops, J.** See *P. E. Verkade*.
- Coops, J., jun.** See *P. E. Verkade*.
- Copaux, H., and C. Matignon**, various states of beryllium oxide, ii, 1192.
- Copaux, H., H. Perperot, and R. Hocart**, production of active hydrogen, ii, 587.
- Coper, K.** See *H. Zocher*.
- Coppens, A.**, influence of mercury on the sulphonation of anthraquinone, i, 1432.
- Coppens, A.** See also *J. P. Wibaut*.
- Coquillat, A.**, Tromsdorff reagent for nitrites, ii, 328.
- Corbet, G.** See *A. Boutaric*.
- Corbett, C. S.**, leverrierite as a schist-forming mineral, ii, 997.
- Corbitt, H. B.** See *H. E. Dubin, and C. N. Myers*.
- Corby, F. J.** See *G. T. Morgan*.
- Cordier, G.** See *E. Ducloux*.
- Corey, R. B., and A. W. Laubengayer** [with *L. M. Dennis*], germanium. VIII. Physical properties of monogermane, ii, 493.
- Cori, C. F.**, insulin and liver glycogen, i, 753.
effect of insulin and adrenaline on lactic acid content of blood and tissues, i, 753.
- Cori, C. F., and G. T. Cori**, carbohydrate metabolism of tumours. I. Free dextrose, lactic acid, and glycogen content of malignant tumours, i, 999.
carbohydrate metabolism of tumours. II. Changes in sugar, lactic acid, and carbon dioxide combining power of blood passing through a tumour, i, 1492.
- Cori, G. T.** See *C. F. Cori*.
- Cork, J. M.**, short wave X-ray spectrograph and some K-series emission wave-lengths, ii, 250.
- Corley, R. C.** See *W. C. Rose*.
- Cornubert, R.** See *A. Haller*.
- Cornwall, L. H., and C. N. Myers**, neurosyphilis. III. Relative arsenic content of the spinal fluid, brain, and spinal cord of rabbits after intravenous injection of silver salvarsan, i, 611.
- Corran, J. W., and W. C. McC. Lewis**, hydrogen-ion concentration of the whole blood of normal males and of cancer patients measured by means of the quinhydrone electrode, i, 188.
lecithin and cholesterol in relation to the physical nature of cell membranes, i, 198.
- Correa, L. M.** See *A. H. Roffo*.
- Cosma, J.** See *I. I. Nitzescu*.
- Cosmovici, N. L.**, action of hydrogen ions on the clotting of milk, i, 608.
rôle of acidity in the shrinkage of the clot [in milk], i, 608.
- Costa, D.**, absorptive power of cellulose nitrate for gases, ii, 956.
- Costa, J. L.**, exact determination of the atomic mass of the lithium isotope 6, ii, 619.
mass spectra of light elements, ii, 1021.
- Coste, F.** See *P. Pagniez*.
- Costeanu, N. D.**, action of iodine on benzene, i, 238.
- Coster, D.**, energy levels of X-ray spectra of chemical elements, ii, 458.
- Coster, D., and Y. Nishina**, quantitative chemical analysis by means of X-ray spectrum, ii, 324.
- Cotton-Feytis, (Mlle.) E.**, paramagnetic salts, ii, 945.
- Couch, H. R.** See *T. L. Davis*.
- Couch, J. F.**, new lupine alkaloid, spathulatine, isolated from *Lupinus spathulatus* (Rydb.), i, 61.
Grant's test for sparteine, ii, 448.
- Couder, A.**, action of ammonia on cyanamide, i, 525.
- Coupin, H.**, peroxydases in dried seeds, i, 515.

- Courjon, R. See A. Lumière.
- Courtot, C., and A. Dondelinger, α -halides of indane, i, 654.
optical study of indanyl bases, ii, 274.
- Courtot, C., and R. Geoffroy, [so-called] 2:7:9:9-tetrahydroxyfluorene, i, 926.
- Courtot, C., and P. Petitecolas, synthesis of fluorenylamines, i, 247.
- Coutts, J. R. H., law of distribution of particles in colloidal suspension; specific volume of a gamboge suspension, ii, 290.
- Couture, E. See L. Hugounenq.
- Couturier, F., and S. Perraud, properties of urea in the soil, i, 765.
- Couturier, H. See A. Lumière.
- Coward, H. F., L. Spencer, and F. C. Wood, sorption by cotton, ii, 507.
- Coward, H. F., F. C. Wood, and F. L. Barrett, tendering of cotton fabric by acids, i, 643.
- Coward, K. H., synthesis of vitamin-A by a fresh-water alga, *Chlorella* (sp. ?), i, 750.
persistence of vitamin-A in plant-tissues, i, 1017.
- Coward, K. H. See also J. C. Drummond.
- Cox, D. C., differential electro-titration, ii, 999.
- Cox, H. E., determination of small quantities of arsenic and its occurrence in urine and in fish, ii, 157.
- Cox, R. R. S., chemical constant of chlorine, ii, 645.
- Crabtree, W. B. See L. A. Congdon.
- Crage, C. S. See N. S. Osborne.
- Craik, J., and A. K. Macbeth, glucosides. III. Synthesis of "thioindican," i, 1296.
- Craik, J. See also A. K. Macbeth.
- Craven, R., and W. A. T. Duncan, laboratory preparation of *p*-benzoquinone, i, 938.
- Crawford, A. B. See F. J. Wilson.
- Creighton, H. J. M., and W. H. Ogden, disintegration of carbon anodes in nitric acid, ii, 1068.
- Crespi, M., and R. W. Lunt, decomposition of carbon monoxide in the corona due to alternating electric fields. I., ii, 1178.
- Crespi, M. See also E. Moles.
- Cretcher, L. H., J. A. Koch, and W. H. Pittenger, further syntheses with $\beta\beta'$ -dichlorodiethyl ether, i, 627.
- Cretcher, L. H., and W. H. Pittenger, syntheses with $\beta\beta'$ -dichlorodiethyl ether, i, 228.
glycol esters of certain aromatic acids, i, 1415.
- Crew, H., vacuum-arc spectrum of titanium, ii, 335.
- Crew, M. C., H. E. Steinert, and B. S. Hopkins, solubility of yttrium salts, ii, 190.
- Crippa, G. B. See G. Charrier.
- Crommelin, C. A. See E. Mathias.
- Crooks, W. E. See E. B. R. Prideaux.
- Cross, W., photographic method for absorption spectra in the ultra-violet, ii, 351.
- Crouch, H., and E. K. Carver, effect of nitrogen and carbon dioxide dilutions on explosion limits of acetone and methyl alcohol and their mixtures, ii, 682.
- Crouch, J. F., lupine studies. IV. Isolation of *d*-lupanine from *Lupinus Kingii* (S. Watson), i, 1447.
- Crouter, C. Y. See F. A. Cajori.
- Crowe, J. H., and A. H. Newey, combustion of carbon monoxide mixtures, ii, 875.
- Crowe, M., precision determination of the electrical conductivities of concentrated aqueous solutions of calcium chloride, ii, 541.
- Crowe, W. H., amino-4-pyridones, i, 1319.
- Crowther, E. M., soil reaction. III. Determination of the hydrogen-ion concentration of soil suspensions by means of the hydrogen electrode, i, 875.
soil reaction. IV. Soil reaction of continuously manured plots at Rothamsted and Woburn, i, 875.
soil reaction. V. Depth distribution of reaction, and flocculation in continuously manured soils, i, 875.
availability of organic nitrogen compounds in pot experiments, i, 1371.
effect of removing the soluble humus from a soil on its productiveness, i, 1372.
- Crowther, E. M., and W. S. Martin, soil reaction. VI. Interaction of acid soils, calcium carbonate, and water in relation to the determination of "lime requirements," i, 876.
- Crowther, E. M. See also A. N. Puri.
- Crowther, J. A., and R. J. Stephenson, some electrode phenomena in electrolysis, ii, 1167.
- Croze, F., line spectrum of nitrogen, ii, 77.
line spectra of nitrogen and ionised oxygen, ii, 166.
line spectra of ionised oxygen, ii, 250.
- Crozier, W. J., possibility of identifying chemical processes in living matter, i, 101.
biological oxidations as function of temperature, i, 102.
- Crump, L. M. See D. W. Cutler

- Cruto, *A.* See *C. Serono.*
- Csapó, *J.*, determination of sugar in the cerebrospinal fluid, i, 721.
influence of neutral salts on the combination of gelatin with acids, ii, 1157.
- Csapó, *J.*, and *J. Faubl*, calcium content of serum protein fractions, i, 96.
- Csapó, *J.*, and *D. von Klobusitzky*, influence of hydrogen-ion concentration on the precipitation of serum proteins by salts. I., i, 178.
blood clotting and the Hofmeister series, i, 717.
- Csapó, *J.* See also *A. Bosanyi.*
- Császár, *E.*, the statistical distribution function in the theory of radiation and atomic heat, ii, 733.
- Csonka, *F. A.* See *D. B. Jones.*
- Cuenca, *B. S.* See *C. J. Diaz.*
- Cullen, *G. E.*, and *E. Biilmann*, use of quinhydrone electrode for determination of p_H of serum, i, 1201.
- Cumming, *W. M.*, hydroferrocyanides and hydroferricyanides of organic bases. IV., i, 122.
- Cumming, *W. M.*, and *D. G. Brown*, hydroferrocyanides and hydroferricyanides of alkaloids. I., i, 572.
- Cummings, *E. O.* See *J. F. Norris.*
- Cunliffe, *P. W.*, action of light on dyes applied to cotton fabrics; summary of the literature, ii, 812.
- Cunliffe, *P. W.* See also *A. J. Allmand.*
- Cupr, *V.*, absorption of hydrogen chloride in concentrated sulphuric acid, ii, 655.
- Curie, (*Mlle.*) *I.*, homogeneity of initial velocities of α -particles from polonium, ii, 348.
variations of range, initial velocity, and ionising power of the α -particles from polonium, ii, 834.
- Curie, (*Mlle.*) *I.*, and *C. Chamié*, radioactive constant of niton, ii, 8.
- Curie, (*Mlle.*) *I.*, and *J. D'Espine*, magnetic spectrum of β -particles from radium-*E*, ii, 732.
- Curie, (*Mlle.*) *I.*, and *N. Yamada*, distribution of length of α -particles of polonium in oxygen and nitrogen, ii, 175.
long-range particles emitted by polonium, ii, 621.
- Curie, (*Mme.*) *Marie*, determination of radium in uranium minerals containing tantalum, niobium, and titanium, ii, 241.
constancy of the rate of transformation of radium emanation at different concentrations, ii, 463.
- Curie, (*Mme.*) *Marie*, and *D. K. Yovanovitch*, increase of the heating effect of radium preparations due to growth of polonium, ii, 464.
- Curie, *Maurice*, photo-electric and phosphorogenic effect, ii, 355.
- Currie, *A. N.*, determination of small quantities of copper in tissues, i, 183.
- Currie, *J. A.* See *D. L. Hammick.*
- Currie, *J. E.* See *E. F. Burton.*
- Curtis, *W. E.*, Fulcher hydrogen bands, ii, 351.
- Curtis, *W. E.*, and *W. Jevons*, Zeeman effect on the helium bands, ii, 1103.
- Curtis, *W. E.*, and *R. G. Long*, structure of the band spectrum of helium. III. The doublet bands, ii, 722.
- Curtiss, *L. F.*, direct determination of distribution of intensity in the natural β -ray spectrum of radium-*B* and -*C*, ii, 622.
- Curtius, *F.* See *A. Kossel.*
- Curtman, *L. J.*, *C. Margulies*, and *W. Plechner*, removal of phosphates in systematic qualitative analysis, ii, 68.
- Cusmano, *G.*, reaction between 2:6-dibromocyclohexanones and alkali, i, 818.
synthetic catalysts, ii, 690.
- Cusmano, *G.*, and *G. Massa*, relations between diketocineole and buchucamphor. VI., i, 686.
- Cutler, *D. W.*, and *L. M. Crump*, influence of washing on the rate of reproduction of *Colpidium colpoda*, i, 1012.
- Cutter, *J. O.*, *H. Burgess*, and *T. M. Lowry*, rotatory dispersive power of organic compounds. XVI. Halogen derivatives of camphor; optical superposition in the camphor series, ii, 743.
- Cutter, *J. O.* See also *T. M. Lowry.*
- Cuy, *E. J.*, electrical conductivity of metallic solid solutions, ii, 378.
- Czerny, *M.*, measurements of the rotation spectrum of hydrogen chloride in the long-wave ultra-red, ii, 1024.
- Czerny, *O.*, nature of the colophony extracted from the firs of Bucoovina, i, 253.
- Czerwinski, *J.* See *K. Jellinek.*
- Czochralski, *J.*, structure of metals and its physical investigation, ii, 186.
modified reflexion in metallography, ii, 487.
radio technique in metallurgy, ii, 642.

D.

- Daecke, H.**, statistical investigations on the sub-electron, ii, 253, 349.
- Dällenbach, W.**, generalisation of the Townsend theory of spark potentials, ii, 740.
- Daevs, K.**, iron-carbon diagram and the most important constituents of plain carbon steels, ii, 401.
- Dahl, O.** See **G. Tammann**.
- Dahl, P.** See **H. Goldschmidt**.
- Dahmen, W.**, spark spectrum of potassium, ii, 167.
- Dains, F. B., R. Q. Brewster, I. L. Malm, A. W. Miller, R. V. Maneval, and J. A. Sultzberger**, substituted thiocarbamides. V. Synthesis of thiocarbamides from aminoethanols, and of thiazolidine derivatives, i, 1063.
- Dam, H.**, iodine value of coprosterol, i, 856.
determination of the iodine number of cholesterol, ii, 444.
- Damerell, V. R.** See **W. L. Semon**.
- D'Amico, E.** See **G. Romeo**.
- Damiens, A.**, tellurium suboxide, ii, 316.
allotropy of mercuric iodide, ii, 490.
artificial magnesium silicate, ii, 812.
- Danckwortt, P. W., and E. Pfau**, fate of hydrocyanic acid in the animal organism; new method of detecting thiocyanates in organic material, i, 196.
proteolytic enzyme in the pods of *Vicia faba*, L., i, 202.
- Danehl, J.** See **J. Tröger**.
- Daniel, W.** See **K. von Auwers**.
- Daniels, F.** See **J. K. Hunt, and J. W. Williams**.
- Daniels, S.**, cast alloys of aluminium containing small amounts of magnesium, ii, 103.
- Danilov, A. N.**, pigment formation by fungi, i, 1013.
- Danner, P. S.**, barium and strontium amalgam electrodes, ii, 42.
preparation of very pure barium and strontium, ii, 62.
- Dannher, C. A.** See **H. C. Parker**.
- D'Ans, J., and A. Jäger**, sodium hydroxide and cellulose, i, 1387.
- Darmois, E.**, optical activity; copper salts of malic acid, ii, 15.
action of boric acid on the rotatory power of malic acid and malates, ii, 357.
molecular dissymmetry and optical activity, ii, 1119.
- Darmois, E., and A. Honnelaitre**, ammonium dimolybdomalate, ii, 184.
- D'Arsonval, and Bordas**, colloids and mineral waters, ii, 291.
- Darwin, C. G.**, optical constants of matter, ii, 2.
resonance radiation and the correspondence principle, ii, 169.
- Daschavsky, P. G.** See **T. B. Johnson**.
- Datta, R. L., and B. C. Chatterjee**, halogenation. XII. Derivatives of carbamic esters; chlorine as a simultaneous oxidising and chlorinating agent. II., i, 891.
- Datta, S.**, regularities in band spectra, ii, 86.
- Datta, S. K.** See **C. V. Raman**.
- Dauphinee, J. A.** See **A. Hunter**.
- Daure, P.**, determination of Avogadro's number from the light diffused by ethyl chloride, ii, 753.
- Dauvillier, A.**, new experiments with Crookes' tube, ii, 1116.
- Dauvillier, A.** See also **L. de Broglie**.
- Davey, W. P.**, lattice constants of metals, ii, 747.
plasticity of single crystals, ii, 1039.
decomposition of hydrogen peroxide, ii, 1181.
- Davey, W. P.** See also **L. Navias**.
- David, L.**, reactions of some opium alkaloids, ii, 1010.
- David, W. T.**, effect of infra-red radiation on the rate of combustion of inflammable gaseous mixtures, ii, 980.
- Davidsohn, H.**, vitamin studies; water-soluble growth-promoting factor. I. Determination of the factor promoting growth in bacteria, i, 108.
- Davidson, A. W.**, solutions in 100% sulphuric acid; solvolysis and double decomposition reactions, ii, 505.
- Davidson, B. M.**, intoxication. III. Action of ethylene. IV. Action of propylene. V. Action of ethyl chloride. VI. Action of methyl ether, i, 1503.
- Davidson, D.**, hydantoins. XLIV. Pyruvic and dipyrucic triureide, i, 583.
hydantoins. XLVI. Nitropyrucic ureide, i, 975.
- Davidson, D., and O. Baudisch**, oxidation of isobarbituric acid, i, 1188.
- Davidson, D., and T. B. Johnson**, hydantoins. XLV. Dipyrucic ureide, i, 584.
- Davidson, D.** See also **O. Baudisch**.
- Davidson, L. F.** See **T. T. Baker**.
- Davies, C. W.**, conductivity of electrolytes, ii, 541.

- Davies, C. W.**, conductivity of electrolytes. II. Mobility of the hydrogen ion at 25°, ii, 871.
conductivity of electrolytes. III. Correlation of strong and weak electrolytes, ii, 871.
- Davies, E. L.**, and **G. H. Livens**, kinetic theory of metallic conduction, ii, 630.
- Davies, G. H. B.** See **W. G. Whitman**.
- Davies, G. R.** See **G. T. Morgan**.
- Davies, P. G.** See **M. P. Applebey**.
- Davis, B.**, dependence of the intensity of the Compton effect on the atomic number, ii, 747.
critical potentials and the refractive indices of elements and compounds, ii, 933.
- Davis, D. S.**, pressure-temperature charts for organic vapours, i, 1033.
- Davis, D. S.** See also **W. G. Whitman**.
- Davis, R. C.** See **R. H. Major**.
- Davis, T. L.**, mechanism of reactions in the carbamide series, i, 375.
- Davis, T. L.**, and **A. J. J. Abrams**, dehydration of ammonium nitrate, ii, 581.
- Davis, T. L.**, **A. A. Ashdown**, and **H. R. Couch**, two forms of nitroguanidine, i, 644.
- Davisson, C.**, Schottky's method of determining the distribution of velocities among thermionic electrons, ii, 730.
- Davisson, C.**, and **L. H. Germer**, thermionic work function of oxide-coated platinum, ii, 81.
- Dawson, E. R.** See **B. S. Platt**.
- Dawson, L. E.**, technique for measuring the hydrogen-ion concentration of distilled water and unbuffered solutions not in equilibrium with the carbon dioxide of the air, ii, 680.
electrode vessel for liquids heavier and lighter than the liquid junction potential eliminator, ii, 978.
- Dayhuff, W. C.**, and **D. R. Hoagland**, electrical charge on a clay colloid as influenced by hydrogen-ion concentration and by different salts, i, 219.
- De, S. C.** See **P. Guha**.
- Dean, A. L.**, **R. Wrenshall**, and **G. Fujimoto**, synthesis of the anhydride of hydroxymercuri-ethoxychaulmoogric acid and ethyl acetoxymercuri-ethoxychaulmoograte, i, 545.
leprosy. XXXVIII. Catalytic reduction of chaulmoogric and hydno-carpic acids, i, 1414.
- Dean, A. L.** See also **R. Wrenshall**.
- Dean, G.**, atomic weight of carbon and silver, ii, 255.
- Dean, H. F.**, and **M. Nierenstein**, constitution of catechin. VIII. α -3:5:3':4'-Pentahydroxy-4-benzyl-1:2-dihydrocoumarone, i, 280.
attempts to synthesise myricetin, i, 951.
- Dean, P. M.**, and **E. Newcomer**, determination of chlorides by calorimetric titration; titration of mixtures of cyanide and halides, ii, 597.
- Dearden, W. H.** See **F. C. Thompson**.
- Debucquet, L.**, arsenyl tartrates of pyridine, quinoline, and some alkaloids, i, 973.
arsenical emetics; emetics of pyridine, quinoline, and some alkaloids, i, 1090.
- Debye, P.**, and **J. McAulay**, electric field of ions and neutral salt action, ii, 171.
- Debye, P.**, and **L. Pauling**, inter-ionic attraction theory of ionised solutes. IV. Influence of variation of dielectric constant on the limiting law for small concentrations, ii, 970.
- Decans, V.**, and **J. Dufour**, electrolytic reduction of benzoic acid at the b. p., i, 1272.
- Decarrière, E.**, catalytic oxidation of ammonia by air in contact with platinum-palladium alloys, ii, 565.
- Decarrière, E.** See also **P. Pascal**.
- Dede, L.**, and **T. Walther**, preparation of colloidal elements by photochemical decomposition of their gaseous hydrides. I. Preparation of colloidal arsenic, ii, 197.
- Deel, H.**, and (*Mme.*) **H. Deel**, influence of hydrogen-ion concentration of soil on formation and composition of peppermint oil, i, 622.
- Deel, (Mme.) H.** See **H. Deel**.
- DeFoe, O. K.**, and **A. H. Compton**, density of rock salt and calcite, ii, 646.
- DeFoe, O. K.**, and **W. W. Nipper**, total intensity of scattered X-radiation, ii, 336.
- DeFoe, O. K.** See also **G. E. M. Jauncey**.
- Dehe, H.** See **B. Helferich**.
- Dehn, O. von**, separate determination of potassium and sodium in urine, i, 855.
- Dehnert, F.**, and **W. König**, action of strong bases on cotton cellulose. I. and II., i, 369.
- Deiss, E.**, arsenates of tervalent manganese. I., ii, 893.
- Déjardin, G.** See **L. Bloch**.
- Deker, M.** See **E. Wilke-Dörfurt**.
- Delaby, R.**, and **J. M. Dumoulin**, isomerism of vinylalkylcarbinols and ethyl alkyl ketones, i, 632.

- Delaby, *R.*, and *G. Morel*, preparation of methylalkylglycerols, i, 773.
- Delacre, *M.*, photodypnopinacolins, i, 681.
- Delaplace, *R.*, extension of the law of Gay-Lussac to superficial solutions, ii, 772.
- Delauney, *E.*, new method of quantitative analysis by means of X-rays, ii, 822.
- Delauney, *P.*, glucosides of several species of indigenous orchids, i, 487.
- Delauney, *P.* See also *C. Charaux*.
- Delaval, *H.* See *E. Kayser*.
- Delaville, *L.* See *L. Blum*.
- Delaville, *M.*, and *C. M. Jones*, determination of uric acid in blood plasma, i, 1201.
- determination of uric acid in blood, i, 1344.
- Delaville, *M.* See also *L. Blum*.
- Delbanc, *A.* See *J. N. Brönsted*.
- Délepine, *M.*, structural relations between pinenes and the terpineols or limonenes derived from them, i, 564.
- Delf, *E. M.*, influence of storage on the antiscorvy value of fruits and vegetable juices, i, 484.
- Dellaacher, *J.* See *R. Kremann*.
- Deloraine, *E. M.*, new alloy of iron and nickel of high permeability, ii, 639.
- Demjanovski, *S.*, application of electrical conductivity to quantitative analysis in biochemical practice. I. Titration of certain inorganic salts with sodium hydroxide, i, 1113.
- Demolon, *A.*, siliceous matter in quaternary clays, ii, 1195.
- Demoussy, *E.*, displacement of acids by diffusion, ii, 654.
- Demoussy, *E.* See also *G. André*.
- Dempster, *A. J.*, life of metastable helium, ii, 171.
- passage of slow canal rays through hydrogen, ii, 1020.
- Demuth, *F.*, milk and gastric lipase, i, 103.
- phosphate metabolism. I. Hexose-phosphatases in human organs and body fluids, i, 1497.
- Deneke, *H.* See *F. Krauss*.
- Denigès, *G.*, Thomas' naphthol reaction for free and combined pentoses, i, 790.
- general application of the alloxantin reaction for ferric iron, ii, 441.
- detection and determination of cobalt by spectroscopy and colorimetry, ii, 826.
- induced crystallisation in micro-chemistry, ii, 906.
- Denina, *E.*, introduction to a general theory of electromotive force, ii, 41.
- Dennis, *L. M.*, drying tube for phosphorus pentoxide, ii, 428.
- Dennis, *L. M.*, and *F. E. Hance*, germanium. IX. Germanium tetraethyl; preparation and purification of zinc diethyl; analysis by combustion of a liquid containing carbon and hydrogen, i, 798.
- Dennis, *L. M.*, and *A. W. Laubengayer*, germanium. XI. Germanium glasses, ii, 888.
- Dennis, *L. M.* See also *R. B. Corey*, *E. B. Johnson*, and *D. L. Tabern*.
- Dennler, *W. S.* See *A. McKenzie*.
- Densch, *A.*, nature and significance of soil acidity, i, 221.
- copper sulphate as fertiliser, i, 766.
- effect of soluble silicates on crop yields and on the utilisation of phosphates, i, 767.
- Densch, *A.*, and *Hunnius*, experiments with copper sulphate [on plants], i, 489.
- Densch, *A.*, and *Pfaff*, determination of nutritive requirements [of soil] by Mitscherlich's method and some remarks on Neubauer's method, i, 1371.
- Derieux, *J. B.* [electric charges carried by individual microscopic particles], ii, 832.
- Derx, *H. G.*, oxidative cleavage of fats by fungi, i, 1119.
- Desai, *R. D.*, iodine as a catalyst in reactions involving elimination of hydrogen halides, i, 387.
- Desch, *C. H.*, theory of crystallisation in rock magmas, ii, 788.
- Desgrez, *A.*, *H. Bierry*, and *L. Lesœur*, blood-corpuscles and the alkali reserve, i, 604.
- Desgrez, *A.*, *H. Bierry*, and *F. Rathery*, inorganic phosphates and insulin hypoglycemia, i, 1016.
- Desgrez, *A.*, and *R. Vivario*, determination of carbon in organic substances, ii, 436.
- Deshusses, *J.* See *L. Deshusses*.
- Deshusses, *L.*, and *J. Deshusses*, physico-chemical analysis, by conductivity, of vegetable ash. I. Determination of phosphoric acid, ii, 67.
- Deslandres, *H.*, structure and distribution of band spectra, ii, 626, 736, 930, 1023, 1114.
- D'Espine, *J.*, magnetic spectrum of high-velocity β -particles from radium-B+C, ii, 622.

- D'Espine, J.** See also (*Mile.*) **I. Curie**, and **D. K. Yovanovitch**.
- Desvergnès, L.**, detection of nitroaminophenols in urine, i, 328.
physical properties of nitro compounds, i, 1056; ii, 490.
determination of the composition of phenol nitration products, ii, 447.
gravimetric determination of trinitrophenol and a mixture of picric acid and trinitrocresol, ii, 447.
determination of picric acid in the presence of other nitro compounds, ii, 607.
- Deuel, H. J., jun.**, and **W. H. Chambers**, rate of excretion of ingested sugars in phloridzin diabetes, i, 1352.
- Deuel, H. J., jun.** See also **W. H. Chambers**.
- Deuticke, H. J.**, significance of ions in muscular function. VII. Effect of various organic anions on the lactacidogen changes, i, 729.
- Deutsch, D.**, effect of dielectrics on the stability of colloids, ii, 525.
- Dewael, A.**, abnormal reaction of propylene chlorohydrin, i, 14.
- Dewael, A.**, and **A. Weckering**, primary γ - and δ -methylhexanols, i, 3.
- Dewey, J.**, transference numbers of sodium and potassium chlorides and of their mixtures, ii, 873.
- Dey, A. N.**, and **N. R. Dhar**, induced oxidation and its mechanism explained on the basis of the formation of ions during chemical reactions, ii, 692.
- Dey, B. B.**, and **K. K. Row**, reactivity of the methylene group in coumarin-4-acetic acids and their esters. I. and II., i, 149, 953.
- Dhar, N. R.**, vitamin deficiency and pernicious anaemia, i, 1221.
temperature-coefficients of thermal and photochemical reactions, ii, 135.
activation of atoms and molecules and mechanism of chemical change, ii, 214.
action of nitric acid on metals, ii, 315.
negative catalysis of oxidation reactions, ii, 690.
- Dhar, N. R.**, and **A. C. Chatterji**, theory of Liesegang ring formation, ii, 865, 959.
- Dhar, N. R.**, and **B. K. Mukerji**, life period of activated molecules in thermal and photochemical reactions, ii, 809.
- Dhar, N. R.**, and **B. K. Mukerji**, Einstein's law of photochemical equivalence, ii, 1075.
mechanism of photochemical reactions, ii, 1079.
- Dhar, N. R.**, and **R. P. Sanyal**, photosynthesis in tropical sunlight, ii, 884.
- Dhar, N. R.** See also **D. N. Chakravarti**, **A. N. Dey**, **S. Ghosh**, **N. M. Mitra**, **K. B. Mukerji**, **C. C. Palit**, and **R. P. Sanyal**.
- Dhéré, C.**, electro dialysis, i, 199.
- Dhéré, C.**, **A. Schneider**, and **T. van der Bom**, fluorescence of metallic compounds of hæmatoporphyrin, ii, 88.
- D'Huart**, adsorption of water vapour and some other vapours by the surface of glass, ii, 657.
- Diamant, N.** See **S. Fränkel**.
- Diaz, C. J.**, and **B. S. Cuenca**, micro-determination of blood-sugar, i, 453.
- Di Capua, C.**, ternary system, lead-cadmium-thallium, ii, 787.
hardness of ternary alloys of lead, bismuth, and cadmium, ii, 1051.
hardness of ternary alloys of lead, bismuth, and tin, ii, 1051.
- Dickens, F.**, **E. C. Dodds**, and **S. Wright**, preparation and standardisation of the ovarian hormone, i, 1513.
- Dickinson, J.**, electrification of gases by surface combustion, ii, 740.
- Dickinson, R. G.**, and **J. B. Friauf**, crystal structure of tetragonal lead monoxide, ii, 18.
- Dickson, B. R.** See **F. N. Allan**.
- Dickson, J. G.** See **S. H. Eckerson**.
- Dickson, J. V. E.**, liberation of hydrogen from carbon compounds, i, 1033.
- Diechmann, G. H.** See **P. Karrer**.
- Dieke, G. H.**, structure of the so-called ultra-violet bands of water vapour, ii, 180, 927.
intensities in the many-lined spectrum of hydrogen, ii, 450.
bands in the secondary spectrum of hydrogen, ii, 625.
intensities in band spectra, ii, 626, 836.
Fulcher hydrogen bands, ii, 737.
- Diekmann, J. J.** See **J. P. Wibaut**.
- Diels, O.**, **J. H. Blom**, and **W. Koll**, formation of endomethylene-piperidazine from cyclopentadiene and azo-esters, and its conversion into 1:3-diaminocyclopentane, i, 976.

- Diels, O.**, and **W. Gädke**, dehydrogenation of cholesterol, i, 1062.
- Diels, O.**, and **W. Koll**, cuprohalide molecular compounds of azo compounds, i, 988.
- Dienes, O. von**, hydrogen persulphide, ii, 228.
- Diepolder, E.** See **O. Fischer**.
- Diesbach, H. de**, and **K. Strebel**, dibenzoylxylenes and dinaphthanthraquinones. III., i, 1435.
- Diesbach, H. de**, and **G. Zurbriggen**, derivatives of cumidic and pyromellitic acids, i, 1427.
- Dietrich, W.**, influence of experimental conditions on the decomposition of benzoyl peroxide, i, 544.
- Dietrichson, G.** See **L. J. Bircher**.
- Dietzel, R.**, and **S. Galanos**, optical researches on sulphurous acid and its alkali salts, especially potassium and ammonium pyrosulphites, ii, 1115.
- Dietzel, R.**, and **R. Krug**, chemical equilibrium between lactic acid and its anhydrides in aqueous solution, i, 1036.
- Dietzel, R.**, and **J. Naton**, halochromism of fulgides. II., i, 1067.
- Dietzel, R.**, and **F. Schlemmer**, hypochlorous acid and the alkali hypochlorites, ii, 892.
- Dijk, W. J. D. van**, Becquerel effect on copper oxide electrodes, ii, 1083.
- Dijkstra, D. W.** See **F. M. Jaeger**.
- Dill, D. B.**, composition of crude gluten, i, 622.
proximate composition of certain Pacific Coast fish, i, 855.
- Dill, D. B.**, and **C. L. Alsberg**, preparation, solubility, and specific rotation of wheat gliadin, i, 1478.
- Dilthey, P.** See **F. Fischer**.
- Dilthey, W.**, triphenylmethane dyes, i, 650.
diketonates of metalloids. VI. Action of tin and zirconium tetrachlorides on β -diketones, i, 1473.
- Dilthey, W.** [with **A. Schaefer**], arylated pyridines. VI. *N*-Alkylquinopyridans, i, 153.
- Dilthey, W.**, and **E. Floret**, arylated pyrylium compounds and their relations to the benzopyrylium compounds. XIV., i, 55.
- Dilthey, W.**, and **W. Radmacher**, isomeric chalcones [phenyl styryl ketones], i, 408.
pyrylium compounds. XV. Arylated pyridines. VII. *m*-Substituted triphenylpyrylium compounds, i, 1441.
- Dilthey, W.**, and **C. Thelen**, 3-methoxy-2-phenylquinoline-4-carboxylic acid; [3-methoxyatophan], i, 1317.
- Dimitrov, M.**, test for chlorine in the presence of bromine, iodine, etc., ii, 326.
iodometric titrations, ii, 598.
- Dimmett, P. S.** See **W. C. Rose**.
- Dimroth, O.**, influence of solvent on the equilibrium of isomerides, ii, 36.
- Dinanath, T.** See **G. J. Fowler**.
- Dingemane, E.**, micro-determination of blood-sugar, i, 323.
- Dingemane, E.**, and **E. Laqueur**, adsorption of poisons by charcoal. II., i, 1500.
- Dirac, P. A. M.**, conditions for statistical equilibrium between atoms, electrons, and radiation, ii, 6.
- Dirken, M. N. J.**, multiple gas analysis apparatus, ii, 154.
- Dirks, B.**, preparation of 4-acetamidocoumarone, i, 148.
- Dirsch, R.** See **S. Goldschmidt**.
- Dirska, G.** See **J. Meyer**.
- Ditman, N. E.**, electromagnetic nature of colloidal, enzyme, and catalytic action and its significance, ii, 51.
- Dittler, E.**, manganese-bearing river pebbles, ii, 322.
new mineral analyses, ii, 323.
analytical-synthetic researches on zincite, ii, 1184.
- Dittmer, A. F.** See **I. Langmuir**.
- Dittrich, J.**, calcium content of bile, i, 325.
- Dixon, A. L.** See **W. H. Rodebush**.
- Dixon, H. B.**, ignition of carbon disulphide vapour and its phosphorescent flame, ii, 683.
- Dixon, M.**, xanthine oxydase. V. Function of catalase, i, 1010.
- Dixon, M.**, and **S. Thurlow**, xanthine oxydase. VI. A cell oxidation system independent of iron, i, 1213.
- Dixon, M.** See also **F. G. Hopkins**.
- Doan, F. J.** See **H. R. Bierman**.
- Doan, R. L.** See **A. H. Compton**.
- Dobrescu-Cluy, J. M.**, dynamics of assimilation of potassium [by plants] from mineral silicates, i, 1223.
- Dobrowsky, A.** See **E. Späth**.
- Dodds, E. C.**, **W. Lawson**, and **J. C. Mottram**, metabolic differences, following X-radiation, between normal rats and rats immune to Jensen's rat sarcoma, i, 1492.
- Dodds, E. C.** See also **F. Dickens**.
- Doelter, C.**, importance of colloid chemistry in mineralogy and geology, ii, 514.

- Döpel, R.**, electromagnetic analysis of positive rays, ii, 168.
selective photo-electric effect on strontium, ii, 832.
- Doerner, H. A.**, and **W. M. Hoskins**, co-precipitation of radium and barium sulphates, ii, 381.
- Dognon, A.**, influence of wave-length on the coagulation of a colloidal solution by X-rays, ii, 665.
- Dohme, A. R. L.** See **Sharp & Dohme**.
- Dokan, S.**, action of alkalis on Konyaku colloid, ii, 967.
- Dokan, S.** See also **L. Michaelis**.
- Dolde, A.** See **K. Hofmann**.
- Doleschall, F.** See **N. Frank**.
- Dominik, W.**, potassium ferrocyanide from sodium ferrocyanide and potassium chloride, i, 526.
- Dominikiewicz, M.**, structure of the benzene nucleus, i, 15.
structure of fluoran and phthalophenone derivatives, i, 53.
catalytic reduction of thymol to menthol, i, 146.
structure of kaolin; theory of the structure of silicates, ii, 1036.
the structure of ultramarine, ii, 1131.
- Domogalla, B. P., C. Juday, and W. H. Peterson**, forms of nitrogen in lake waters, i, 765.
- Domogalla, B. P.** See also **W. H. Peterson**.
- Donat, H.** See **E. Wichert**.
- Donath, W. F.**, changes in the percentage of vitamin-A and in the nature of albumin during the germination of seeds of *Phaseolus radiatus*, L. (katjang idjo), i, 483.
- Dondelinger, A.** See **M. Bourgeaud**, and **C. Courtot**.
- Donder, T. de**, affinity, ii, 539.
calculation of specific affinity, ii, 790.
- Donker, H. J. L.** See **A. J. Kluyver**.
- Donnan, F. G.**, influence of J. Willard Gibbs on the science of physical chemistry, ii, 395.
- Doolan, J. J.**, conditions of precipitation, by electrolytes, of selenium hydrosol and other hydrosols, ii, 293.
- Doolan, J. J., and J. R. Partington**, vapour pressure of tellurium, ii, 278.
- Dorabialska, (Mlle.) A.**, thermochemical researches on the oximes. III. Stereoisomeric dioximes, ii, 208.
thermochemical researches on the oximes. IV. Acetaldoxime, ii, 1140.
- Dorcas, M. J.** See **W. J. V. Osterhout**.
- Dorenfeldt, (Mme.)** See **(Mlle.) E. Gleditsch**.
- Dorgelo, H. B.**, intensity measurements in the ultra-violet, ii, 335.
intensity relations of triplet components of the alkaline earths and spark doublets of calcium, ii, 724.
distribution of energy over the lines of the main series of neon in a column discharge, ii, 1099.
- Dorier, P. C.** See **L. Bert**.
- Dorrell, G. W.**, catalysis by alumina of the reaction between ethyl alcohol and ammonia, ii, 1174.
- Dorrer, E.** See **H. Wieland**.
- Doser, A.** See **K. Freudenberg**.
- Dosios, C.**, and **T. Tsatsas**, nitro derivatives of diphenyl ethylene ether, i, 655.
- Dougal, J. W.**, chlorohydrocarbons as toxic agents, i, 334.
- Doughty, H. W.**, reaction of dichloroacetic acid with aromatic amines, i, 805.
Mohr's method for determination of silver and halogens in other than neutral solutions, ii, 238.
- Doughty, H. W., and A. P. Black**, preparation and properties of dichloroacetic acid, i, 628.
- Douglas, G. W.** See **W. R. Atkin**.
- Douker, H. J. L.** See **A. J. Kluyver**.
- Dowding, E. S.**, regional and seasonal distribution of potassium in plant tissues, i, 871.
- Dowling, P. H.**, contact *E.M.F.* between the solid and liquid phases of the same metal and between the outgassed surfaces of two dissimilar metals, ii, 796.
- Downey, W. E.** See **H. J. Emeléus**.
- Downing, F. B.** See **W. S. Calcott**.
- Dox, A. W.**, phenylethylethylbarbituric acid and relative derivatives, i, 300.
tetra-alkylsuccinimides and their pharmacological action, i, 796.
- Dox, A. W.** See also **A. Thomas**.
- Dozier, C. C.** See **E. Wagner**.
- Draganescu, S., and A. Lissievici-Drăganescu**, enzymes of cerebrospinal fluid in pathological conditions, i, 611.
- Dragendorff, O.** See **H. Wieland**.
- Drane, H. D. H.**, spiral springs of quartz, ii, 995.
- Draves, C. Z., and H. V. Tartar**, instability of phthalate solutions towards the hydrogen electrode, ii, 695.
- Drazil, H.** See **R. Kreman**.
- Dreisch, T.**, influence of the CH-group on the absorption of certain organic compounds below 3μ , ii, 178.
absorptive power of liquids and their vapours for infra-red radiation of wave-length less than 3μ , ii, 627.

- Dresbach, *M.*, and *H. R. Hosmer*, polarisation of metals used as electrodes, ii, 1063.
- Dresel, *K.*, and *H. Rothmann*, micro-determination of blood-sugar, i, 714.
- Dresel, *K.*, and *E. Wollheim*, electrolytic migrations in the blood and tissues caused by adrenaline, i, 616.
- Drew, *H. D. K.* See *G. T. Morgan*.
- Dreyfuss, *H.*, blood-sugar reduction tables for Bang's "new method" calculated for 50 to 130 mg. of blood, i, 94.
- Driggs, *F. H.*, and *B. S. Hopkins*, rare earths. XVI. Purification and atomic weight of holmium, ii, 463.
- Drouillon, *F.*, study of the ternary mixture: water-ethyl alcohol-*n*-butyl alcohol, ii, 651.
- Druce, *J. G. F.*, organic compounds of tin; stannonic acids and some of their derivatives, i, 798.
organic chloro-stannites and -stannates. VII. Some miscellaneous compounds, i, 1096.
solid hydrides of arsenic and antimony, ii, 700.
search for the element 93. I. Examination of crude manganese compounds and isolation of element of atomic number 75, ii, 1124.
- Druce, *J. G. F.* See also *F. H. Loring*, and *E. J. Weeks*.
- Drucker, *C.*, and *H. Weissbach*, critical miscibility and elevation of b. p., ii, 953.
- Drucker, *C.* See also *W. U. Behrens*.
- Drumm, *J. J.*, *N. G. J. O'Reilly*, and *H. Ryan*, $\alpha\alpha$ - and $\alpha\gamma$ -isomerides of 2:4:6:3':4'-pentamethoxydiphenylpropane, i, 1268.
- Drummond, *J. C.*, *O. Rosenheim*, and *K. H. Coward*, relation of sterols to vitamin-A, i, 617.
- Drummond, *J. C.*, and *T. A. Webster*, ultra-violet radiations and antirachitic substances, ii, 630.
- Drummond, *J. C.* See also *A. S. Parkes*, and *O. Rosenheim*.
- Drury, *D. R.*, total bile. VII. Calcium content, i, 325.
- Druschinin, *D. W.* See *E. W. Bobko*.
- Drzewina, *A.*, and *G. Bohn*, production of acid by cytolysis, i, 1512.
- Drzimal, *H.*, occurrence of salicylic acid in the urine after administration of salicylic acid, i, 99.
- Dschu, *G. L.* See *K. Feist*.
- Duane, *W.* See *S. K. Allison*, (*Miss A. H. Armstrong*, and *G. L. Clark*).
- Dubief, *J.*, variation of viscosity of fluids as a function of volume, ii, 498.
- Dubien, *M.* See *V. Grignard*.
- Dubin, *H. E.*, *H. B. Corbitt*, and *L. Freedman*, relationship between chemical structure and physiological action; effect of 7-adrenaline and derivatives on blood-sugar, i, 1502.
- Dubin, *H. E.*, and *C. Funk*, cod-liver oil. I. Effect of hydrogenation on the vitamin content. II. Concentrate manifesting both antirachitic and antiophthalmic properties, i, 1120.
- Duboin, *A.*, application to chromium of a general method for synthesis of fluorides and silicates, ii, 994.
- Dubois, *C.*, and *M. Polonovski*, influence of adrenaline on the concentration of carbamide in the blood, i, 481.
- Dubois, *R.* See *R. Fosse*.
- Dubon, *A.*, silicate compounds of cadmium, ii, 221.
- Dubrisay, *R.*, capillary chemical phenomena, ii, 961.
- Duchon, *F.*, action of silica in increasing the yield [of plants] in sand cultures with insufficient phosphoric acid, i, 767.
- Duck, *A. E.* See *G. T. Morgan*.
- Duckers, *G. E.* See *I. D. Garard*.
- Duckett, *J.*, and *W. H. Patterson*, influence of a third substance on the critical solution temperature of phenol and water, ii, 381.
- Duckett, *J.* See also *W. H. Patterson*.
- Duclaux, *J.*, and *J. Errera*, mechanism of ultrafiltration, ii, 530.
measurement of viscosity, ii, 1048.
- Ducloux, *E.*, and *G. Cordier*, action of pancreatic extract of *Acanthias vulgaris* (dog-fish) compared with that of beef insulin, i, 1364.
- Dudley, *H. W.*, *M. C. Rosenheim*, and *O. Rosenheim*, chemical constitution of spermine. I. Isolation of spermine from animal tissues and preparation of its salts, i, 294.
- Dünner, *L.*, and *M. Mecklenburg*, clinical experiments with phloridzin, i, 1500.
- Dützmann, *A.* See *E. Merck*.
- Dufay, *J.* See *J. Cabannes*.
- Duffendack, *O. S.*, excitation of the secondary spectrum of hydrogen by electron impacts, ii, 333.
energy levels in band spectra, ii, 1114.
- Duffendack, *O. S.*, and *H. Huthsteiner*, low-voltage arcs in phosphorus vapour, ii, 452.
- Duffendack, *O. S.* See also *E. F. Barker*.
- Duffieux, *M.*, origin of band spectra, ii, 1023.

- Dufford, R. T., D. Nightingale, and S. Calvert**, spectra of luminescence of Grignard compounds, ii, 89.
luminescence of Grignard compounds; spectra and brightness, ii, 474.
- Dufour, A.**, wave-length of maximum energy in the sound spectrum of an explosion, ii, 183.
- Dufour, J.** See *V. Decans*.
- Dufraisse, C., and H. Moureu**, α -diphenylpropane- $\alpha\beta$ -dione (phenyl-benzylglyoxal), i, 937.
- Dufraisse, C., and J. E. Viel**, α -chloro-styrene, i, 1138.
- Dufraisse, C.** See also *C. Moureu*.
- Duin, C. F. van**, alternating polarity in chain compounds, i, 802.
- Dumanski, A.**, stability of arsenious sulphide hydrosol and velocity of colloidal particles moving under the influence of gravity, ii, 290.
- Dumoulin, J. M.** See *R. Delaby*.
- Dunbar, R. T.**, J-phenomena and the quantum theory of scattering of X-radiation, ii, 455.
- Duncan, E. E.** See *H. J. Stander*.
- Duncan, W. A. T.** See *R. Craven*.
- Dunker, E.** See *J. Tröger*.
- Dunn, E. R.** See *C. Voegtlin*.
- Dunn, M. S.**, liberation of carbon dioxide, ammonia, and amino-nitrogen from casein by acid hydrolysis, i, 1477.
- Duparc, L., P. Wenger, and G. Graz**, solubility of calcium fluoride in acetic acid, ii, 652.
- Duparc, L., P. Wenger, and C. Urfer**, gaseous catalysis by means of metals of the platinum group, ii, 1177.
- Duperier, A.**, thermo-magnetic studies of certain solutions, ii, 173.
- Duperier, A.** See also *B. Cabrera*.
- Dupont, J., and L. Labaune**, determination of citronellal in citronella oil, ii, 75.
- Durand, J. F., and S. Houghton**, reduction of nitro compounds by calcium hydride, i, 646.
- Durand, J. F., and R. Naves**, action of hydrogen peroxide on magnesium arylamines, i, 535.
action of ethyl hypochlorite on mixed organo magnesium compounds and on magnesium-amines, i, 1054.
hypochlorous esters and the problem of the polarity of valencies, i, 1230.
- Durand, J. T., and E. Rougé**, cryoscopy of diphenyl ether, ii, 759.
- D'Urso, S.** See *G. Minunni*.
- Duschinsky, R.** See *E. Späth*.
- Duseberg, T.**, absorption of fluorescent light by the emitting substance, ii, 262.
- Dusen, M. S. Van**, platinum-resistance thermometry at low temperatures, ii, 590.
- Dushman, S., H. N. Rowe, J. Ewald, and C. A. Kidner**, electron emission from tungsten, molybdenum, and tantalum, ii, 345.
- Dushman, S.** See also *M. R. Andrews*.
- Dussol, M.**, electrolytic preparation of hexabromoethane, i, 350.
electrochemical preparation of di-iodoacetylene and "di-iodoform" [tetraiodoethylene], i, 350.
- Dustman, R. B.**, absorption of mineral elements by plants, i, 1123.
- Dutt, P. C.** See *A. C. Sircar*.
- Dutt, P. K.** See *H. W. Carnelley*.
- Dutt, S.**, general synthesis of α -unsaturated acids from malonic acids, i, 882.
constitution of Indian kamala. I., i, 1296.
- Dutt, S., and J. F. Thorpe**, ring-chain tautomerism. XI. The fluoresceins and rhodamines, i, 140.
- Duus, H. C.** See *J. N. Brönsted*.
- Duval, M.**, ionic reaction of the blood of certain invertebrates, i, 325.
- Dyckerhoff, K.** See *H. Standingier*.
- Dyer, H. A.** See *C. Voegtlin*.
- Dyer, J. W. W.** See *N. K. Adam*.
- Dymond, E. G.**, measurement of critical potentials of gases, ii, 6, 253.
double impacts by electrons in helium, ii, 617.
- Dyniewicz, H. A.** See *H. A. Oberhelman*.
- Dziwowski, K., J. Schoenówna, and E. Waldmann**, derivatives of 2-methylnaphthalene, i, 1056.
- Dziwowski, K., and J. Suszko**, hydrogenation of decacyclene (trinaphthylenebenzene), i, 242.
fluorocyclene, i, 649.

E.

- Eadie, G. S., J. J. R. Macleod, and E. C. Noble**, action of insulin, i, 1512.
- Eagles, B. A.** See *F. M. R. Bulmer, and V. J. Harding*.
- Eastcott, E. V.**, formation of bios in infusions, i, 1017.
- Eastman, E. D.**, theory of certain electro-metric and conductometric titrations, ii, 594.
- Eaton, F. J.** See *G. Barger*.
- Ebaugh, W. C.** See *F. G. Keenen, and H. F. Smith*.

- Ebel, F.** See *R. Kuhn*.
- Ebeling, I.**, metallic reflexions. I. and II., ii, 643.
- Ebermann, N. F.** See *W. A. Patrick*.
- Ebert, L.**, dissociation constants of dibasic carboxylic acids and the normal potential of the quinhydrone electrode in absolute methyl alcohol, i, 230.
- dielectric polarisation in pure compounds and mixtures, ii, 14.
- exact magnitude of the electric moment of dipolar molecules, and the chemical significance of orientation polarisation, ii, 262.
- velocity of addition of hydrogen chloride to quinone in methyl alcohol, ii, 408, 556.
- Echave, D.**, analysis of adrenaline, ii, 248.
- Echstein, H. C.**, fatty acids in subcutaneous fat of man, i, 1203.
- Eck, P. N. van**, determination of blood in faeces, i, 187.
- Eckart, C.**, post-arc conductivity and metastable helium, ii, 1104.
- Eckart, C.** See also *K. T. Compton*.
- Ecker, E. E.**, and *J. L. Morris*, factors influencing the destruction of uric acid by *Aerobacter aerogenes*, i, 1118.
- Ecker, E. E.** See also *J. L. Morris*.
- Eckerson, S. H.**, and *J. G. Dickson*, influence of soil temperature and moisture on the chemical composition of wheat and maize, i, 217.
- Eckert, A.**, oxidation in light, i, 413.
- dianthraquinonyl, i, 414.
- chlorination of helianthrone, i, 414.
- Eckert, F.**, constitution of glass, ii, 1145.
- Eckl, K.** See *O. Lemmermann*.
- Eckstein, H. C.**, synthesis of lecithin in the animal organism, i, 458.
- Ectors, E.**, action of organo-magnesium compounds on nitriles; benzonitrile, i, 138.
- Eddington, A. S.**, derivation of Planck's law from Einstein's equation, ii, 1022.
- Eddy, W. H.**, *R. W. Kerr*, and *R. R. Williams*, isolation from autolysed yeast of a crystalline substance melting at 223°, having the properties of a bios, i, 342.
- Edee, R. H.** See *T. J. Thompson*.
- Eder, J. M.**, solarisation of the photographic plate, ii, 986.
- Eder, R.**, and *F. Hauser*, derivatives of β -methylanthraquinone. V. Frangula emodin, emodic acid, and their derivatives, i, 562.
- Eder, R.**, and *F. Hauser*, derivatives of β -methylanthraquinone. VI. Naturally-occurring monomethyl ether of Frangula emodin, i, 563.
- [composition of] chrysarobin, i, 948, 1160.
- Éderer, S.**, influence of vitamin-A and of vitamin-B on unbalanced dietaries, i, 869.
- action of piperidine on calcium deposition, i, 869.
- Edgar, G.**, and *H. E. Shiver*, equilibrium between creatine and creatinine in aqueous solution; effect of hydrogen ion, ii, 533.
- Edlbacher, S.**, nitrogen distribution in the hydroxyproteic acid fraction of urine, i, 855.
- Edlbacher, S.**, and *P. Bonem*, arginase, i, 863.
- Edlbacher, S.**, and *H. Röhler*, arginase. II. Quantitative determination of arginase in animal organs. III. Arginine exchange and sexuality, i, 1505.
- Eds, F. de**, fate of hexamethylenetetramine in the body, i, 461.
- determination of formic acid in blood and urine, i, 713.
- Edwards, C. A.**, and *L. B. Pfeil*, tensile properties of single iron crystals and the influence of crystal size upon the tensile properties of iron, ii, 946.
- Edwards, G. A.**, *W. H. Perkin, jun.*, and *F. W. Stoye*, new synthesis of the meconines, i, 404.
- Edwards, P. R.**, surface tensions of aqueous solutions of various organic compounds, ii, 387.
- Egriwe, E.**, detection of sulphur dioxide, nitrogen dioxide, and some acids, ii, 156.
- Effront, J.**, absorbent power of agar-agar, ii, 201.
- Efimoff, W. W.**, colorimetric determination of oxygen, i, 481.
- Efremov, N.**, latent heat of fusion of camphor, ii, 1140.
- camphor and nitrophenols, ii, 1160.
- Ege, R.**, influence of temperature and reaction on the destruction and activity of pepsin, i, 743.
- Egerton, A. C.**, vapour pressures of monatomic substances, ii, 25.
- numerical values of chemical constants and frequencies of elements, ii, 277.
- Egg, C.** See *V. Kohlschütter*.
- Egger, T.** See *E. Briner*.
- Eggert, J.**, Landolt's reaction. IV., ii, 52.

- Eggert, J.**, and **W. Noddack**, silver halide emulsions and the law of photochemical equivalence, ii, 573. photochemistry of silver compounds, ii, 573.
- Eggert, J.**, and **L. Pfeffermann**, Landolt's reaction. III., ii, 407.
- Eggert, J.**, and **J. Reitstötter**, photographic action of methylene-blue as an adsorption effect, ii, 509.
- Eggleton, P.**, and **L. Gross**, blood-sugar levels of rats fed with complete diets and diets deficient in vitamin-B, i, 1220.
- Eguchi, M.**, the permanent electret, ii, 462.
- Ehler, O.** See **C. E. Mange**.
- Ehrenberg, R.**, tryptic digestion with dilute enzyme solutions. I. and II., i, 103, 202.
- Ehrenhaft, F.**, electrical behaviour of radioactive colloidal particles of the order of 10^{-5} cm. as observed separately in a gas, ii, 465.
- Ehrenstein, M.** See **F. Straus**.
- Ehrlich, F.**, and **K. Rehorst**, *d*-glycuronic acid, i, 1379.
- Eibner, A.**, and **E. Munzing**, oil film or "oxyne." I., i, 1036.
- Eibner, A.**, and **F. Pallauf**, acceleration of the drying of fatty oils by driers, i, 777.
- Eibner, A.**, and **G. Ried**, oil films or "oxyns." II. Autoxidation during the drying of a fatty oil; Walton process linoxyn, i, 1377.
- Eichelberger, L.** See **E. M. Terry**.
- Eichholtz, F.**, interaction of colloidal fats and lipoids, i, 199.
- Eichholtz, F.**, and **E. H. Starling**, action of inorganic salts on the secretion of the isolated kidney, i, 860.
- Eickel, W.** See **A. Windaus**.
- Eidinov, A.** See **T. A. Webster**.
- Eilert, A.**, electrolytic deposition of calcium from solutions of calcium hydroxide in water, and calculation of the normal potential of calcium, ii, 547.
- Einstein, A.**, quantum theory of the monatomic perfect gas, ii, 495. quantum theory of the ideal gas, ii, 624.
- Eisele, I.**, effect of pressure on refractive index of organic liquids, ii, 264.
- Eisenkolb, F.**, passivity of nickel, ii, 1165.
- Eisenkolb, F.** See also **V. Rothmund**.
- Eisenlohr, F.**, and **L. Schulz**, molecular coefficients of refraction, i, 17.
- Eisenman, A. J.** See **J. P. Peters**.
- Eisler, M.**, behaviour of precipitin and agglutinin adsorbed on charcoal or kaolin to their antigen, i, 96.
- Eistert, B.** See **F. Arndt**.
- Eitel, W.**, silicates, ii, 580.
- Ekhard, W.** See **F. Straus**.
- Ekkert, L.**, colour reactions of eserine, ii, 247. colour reaction of *tert*-amyl alcohol, ii, 1006. colour reaction for lactic acid, ii, 1007. diphenylamine reaction [for nitrates], ii, 1093. colour reactions of nitrous and nitric acids, ii, 1200.
- Elam, C. F.**, orientation of crystals in metal test-pieces subjected to small strains followed by heat treatment, ii, 945. orientation of crystals produced by heating strained iron, ii, 946. tensile tests of an aluminium-zinc alloy, ii, 954.
- Elam, C. F.** See also **G. I. Taylor**.
- Elbs, K.**, phenyltriazoles, i, 163.
- Elbs, K.**, and **M. Gaumer**, electrochemical reduction of nitrobenzyl-anilines in weakly alkaline solution, i, 167.
- Elbs, K.**, **H. Nacken**, and **H. Hofmann**, dianilino-*p*-azoxystilbene, i, 168.
- Eldred, D. N.** See **M. Walker**.
- Eldridge, J. A.**, excitation function of the mercury spectrum, ii, 1102. Whittaker's atomic model, ii, 1112.
- Elion, L.**, replacement of the benzoyl group by the nitro group, i, 44. action of nitric acid on derivatives of benzophenone, i, 262.
- Elion, L.**, and **C. Janssen, jun.**, diazotisation and nitration of 3:5-dibromo-*o*-anisidine, i, 389.
- Eller, W.**, constitution of natural humic acids, i, 372.
- Eller, W.** [with **G. Helmrich**, **D. Klemm**, **E. Haubold**, and **A. Schöppach**], humic acids. VII. Properties and reactions of humic acids and humins, i, 521.
- Eller, W.**, and **V. Lorenz**, action of sulphuryl chloride on aminophenols, i, 537.
- Ellestad, R. B.** See **P. H. M.-P. Brinton**.
- Ellett, A.**, polarisation of sodium resonance radiation in magnetic fields, ii, 628.
- Ellinger, P.** [iron the oxygen-carrying component of the respiratory enzyme], i, 1342.

- Ellinghaus, J.**, investigation of tryptic digests by Folin's colorimetric method for determination of amino-acids, i, 865.
- Elliott, G. A.**, and **I. Masson**, thermal separation in gaseous mixtures, ii, 763.
- Ellis, C. D.**, high energy groups in the magnetic spectrum of the radium-*C* β -rays, ii, 9.
- Ellis, C. D.**, and **W. A. Wooster**, heating effect of γ -rays from radium-*B* and radium-*C*, ii, 622, 923.
- Ellis, J. W.**, emission and absorption bands of carbon dioxide in the infra-red, ii, 1115.
- Ellis, O. C. de C.**, influence of nitrogen dilution on the speed of flame, ii, 135.
- Ellis, O. C. de C.**, and **H. Robinson**, flame analysis, ii, 590.
- Ellis, O. C. de C.**, and **R. V. Wheeler**, movement of flame in closed vessels, ii, 554.
- Ellis, O. W.**, intermetallic reactions in a lead-base bearing metal, ii, 282.
- Ellman, S.**, volumetric determination of mercuric iodide, mercuric chloride, and some other mercury compounds, ii, 1205.
- Ellsworth, H. V.**, radioactive minerals as geological age indicators, ii, 593.
- Elöd, E.**, theory of mordanting. II., ii, 531.
- Elvehjem, C. A.** See **E. B. Hart**.
- Embden, G.**, determination of lactic acid in animal organs. II., i, 719.
- Embden, G.**, and **H. Hentschel**, action of fluorine ions on the activity and lactacidogen metabolism of frog muscle, i, 727.
- Embden, G.**, **M. Kahlert**, and **Hermann Lange**, effect of sodium chloride and sodium bromide on the synthesis of lactacidogen by calcium ions, i, 728.
- Embden, G.**, and **M. Zimmermann**, lactacidogen. IV., i, 729.
- Emeléus, H. J.**, glow of phosphorus, ii, 354.
spectroscopic study of the combustion of phosphorus trioxide and of hydrogen phosphide, ii, 740.
- Emeléus, H. J.**, and **W. E. Downey**, spectroscopic study of the luminescent oxidation of phosphorus, ii, 89.
- Emeléus, K. G.**, number of β -particles from radium-*E*, ii, 8.
- Emeléus, K. G.** See also **E. V. Appleton**.
- Emelianova, N. V.**, dropping mercury cathode. VII. Nickel and cobalt, ii, 676.
- Emmerich, W.** See **H. Ley**.
- Emmert, B.**, **G. Jungck**, and **H. Häffner** [with **R. Kuhn**], quinhydrone-like compounds of dihydro-4:4'-dipyridyl, i, 72.
- Emmert, B.**, and **N. Roh** [with **M. Koberne**], new group of organic molecular compounds, i, 587.
- Emmett, P. H.** See **A. F. Benton**, and **L. Pauling**.
- Emmrich, C.**, and **Hermann Lange**, effect of calcium and some of its antagonists on the lactacidogen changes in minced muscle, i, 728.
- Endo, H.**, measurement of the change in volume in metals during solidification, ii, 281.
measurement of the change in volume in alloys during solidification, ii, 281.
- Endoh, C.**, behaviour of tribromoethyl alcohol in the animal body, i, 332.
mixed Cannizzaro reaction. III., i, 1428.
- Endres, R.** See **S. Goldschmidt**.
- Engel, O.** See **J. von Braun**.
- Engel, W.** See **E. Herzfeld**.
- Engelhardt, W.** See **A. Bach**.
- Engels, H.** See **K. Freudenberg**.
- Engfeldt, N. O.**, value of the sodium nitroprusside test for the detection and determination of the total acetone in urine and certain other body fluids, i, 1490.
- Engledon, F. L.** See **H. E. Woodman**.
- Engler, L.** See **E. Fromm**.
- Englis, D. T.**, and **C. Hale**, occurrence of free pentoses in plants; effect of extraction of the sugars with ammoniacal alcohol, i, 618.
- English, F. L.** See **W. S. Calcott**.
- English, S.**, effect of composition on the viscosity of glass. III. Some four-component glasses, ii, 954.
- Enklaar, C. J.**, labile prussic acid (*iso*-hydrocyanic acid), i, 1394.
- Enlund, B. D.**, structure of quenched carbon steels, ii, 486.
- Enos, G. M.**, fundamental factors in corrosion, ii, 1068.
- Ensslin, H.** See **M. Bergmann**.
- Ephraim, F.**, cobaltamines with more than six molecules of ammonia, ii, 992.
- Ephraim, F.**, and **W. Flügel**, cobaltamines of the nitrogen sulphonic acids and sulphatocobaltamines, ii, 61.
- Ephraim, F.**, and **A. Pfister**, salts of aromatic sulphonic acids and their solubilities [in water], i, 896.
salts of certain aromatic carboxylic acids and their solubility, i, 1148.

- Epifanova, (Mme.) T.** See *E. Khotinska*.
- Epstein, A. A.**, action of pepsin on insulin, i, 1513.
- Epstein, C.** See *A. Fodor*.
- Epstein, P. S.**, simultaneous jumping of two electrons in Bohr's model, ii, 1.
- Epstein, Z. A.**, electrical conductivity of an element and its place in the periodic system, ii, 623.
- Erben, F.**, compounds of quinine and copper, i, 573.
- Erben, F. X.**, and *N. Schniderschitsch* [with *W. Vio*], derivative of cupreine containing arsenic, i, 707.
- Erdmann, W.** See *T. Sabalitschka*.
- Erdtman, H.** See *H. von Euler*.
- Erikson, H. A.**, nature of the ions in air and in carbon dioxide, ii, 6.
mobility of actinium active deposit ions, ii, 79.
mobility of argon and hydrogen ions in air, ii, 1107.
- Eriksson, E.** See *H. von Euler*, and *K. Sjöberg*.
- Ernest, A.**, universal commutator for potentiometric measurements by the compensation method, ii, 236.
- Ernst, Z.**, extra-hepatic production of bile pigments in surviving organs. II. Surviving spleen, kidney, and lung, i, 732.
- Ernst, Z.**, and *J. Förster*, extra-hepatic production of bile pigments in surviving organs. III. Surviving spleen of dogs poisoned with phenylhydrazine. IV. Surviving spleen of dogs treated with collargol or colloidal iron, i, 732.
accelerating action of carbohydrates on the oxidation of acetoacetic acid, ii, 684.
- Ernst, Z.**, and *B. Szappanyos*, extra-hepatic production of bile pigments in surviving organs. I. Surviving spleen, i, 732.
- Erp, H. van**, simplified preparation of certain organic compounds. II. Chloro-*p*-benzoquinone, i, 685.
- Errera, J.**, solid state from the electrical point of view; dispersion in the Hertzian region, ii, 362.
- Errera, J.**, and *V. Henri*, ultra-violet absorption spectra of dichloroethylenes, ii, 738.
optical properties of ethylenic isomerides, ii, 1137.
- Errera, J.** See also *J. Duclaux*.
- Escher, H. H.**, isolation of natural crystalline lecithin, i, 1232.
- Escourrou, R.** See *V. Grignard*.
- Esp, V.** See *C. N. Riiber*.
- Essinger, R.**, and *P. György*, colorimetric determination of the inorganic phosphorus of serum, i, 178.
- Estermann, J.**, influence of density and geometrical dimensions of a molecular stream on the formation of deposits, ii, 962.
formation of metallic deposits by molecular radiation, ii, 1053.
- Estill, H. W.** See *A. A. Noyes*.
- Ets, H. N.**, chemical changes in the blood produced by drugs. III. Phloridzin, i, 734.
- Ettisch, G.**, and *H. Runge*, sensitisation of Congo-red by globulin, ii, 864.
- Ettisch, G.** See also *H. Freundlich*.
- Eucken, A.**, heats of dissociation of the oxygen and nitrogen molecules, ii, 207.
- Eucken, A.**, and *F. Fried*, entropy of condensed gases at the absolute zero, ii, 97.
- Eucken, A.**, *E. Karwat*, and *F. Fried*, constant *i* of the thermodynamic vapour-pressure equation for polyatomic molecules, ii, 98.
- Euler, H. von**, affinities existing between substrate and enzyme and their specificity, i, 863.
- Euler, H. von**, and *H. Erdtman*, irisin and the enzymic hydrolysis of polyfructosides, i, 1369.
- Euler, H. von**, and *E. Eriksson*, growth factors. V., i, 1220.
- Euler, H. von**, and *R. Johansson*, comparative determination of phosphate-, calcium-, and magnesium-content of the tibia of rats and guinea-pigs, i, 1489.
- Euler, H. von**, and *K. Josephson*, invertase, i, 1008.
- Euler, H. von**, and *T. Lövgren*, capacity of fresh yeast to ferment galactose after preliminary treatment with this sugar and the constancy of this property, i, 1214.
kinetics of the oxidation-reduction reaction of formaldehyde, ii, 981.
- Euler, H. von**, and *K. Myrbäck*, fermentation co-enzyme (co-*zymase*) of yeast. VI. Further isolation experiments, i, 105.
acceleration of the fermentative activity of fresh yeast by the biocatalyst *z*, i, 745.
phosphate and calcium content of blood of guinea-pigs and rats with varying vitamins-*C* and-*A* administration, i, 1515.
- Euler, H. von**, *K. Myrbäck*, and *S. Karlsson*, enzymic degradation and synthesis of carbohydrate. I. Phosphate exchanges and glycogen cleavage in muscle and in yeast, i, 744.

- Euler, H. von, K. Myrbäck, and R. Nilsson**, enzymic degradation and synthesis of carbohydrates. I., i, 865.
- Euler, H. von, and R. Nilsson**, fermentation of galactose by yeast after previous treatment with this sugar, i, 866.
- dextrose and levulose in alkaline and phosphate-containing solutions, i, 1042.
- co-enzyme. VII., i, 1361.
- hexoses taking part in carbohydrate metabolism, i, 1496.
- Euler, H. von, and A. Ölander**, catalytic decomposition of acetoacetic acid by strong acids and bases, ii, 1069.
- Euler, H. von, A. Ölander, and E. Rudberg**, theory of catalysis. I. Kinetics of mutarotation, ii, 876.
- Euler, H. von, and E. Rudberg**, "reaction-influencing" ions in light and dark reactions, ii, 135.
- influence of salts on solubility, ii, 207.
- solubility of ampholytes, ii, 853.
- Euler, H. von, and V. Sandberg**, nitrogenous equilibrium of the yeast cell, i, 1213.
- Euler, H. von, and O. Swartz**, connexion between the water-soluble growth factors and activators of the degradation of sugar; a thermostable biocatalyst in yeast, i, 209.
- Euler, H. von, and G. Westling**, dried yeast. II., i, 203.
- Euler, H. von, and H. Widell**, growth factors. IV. Influence of excess of *ID* [fat-soluble growth-promoting factor] on the growth of rats, i, 869.
- Euler, H. von, H. Widell, and E. Eriksson**, growth factors. III., i, 869.
- Eusslin, N.** See *M. Bergmann*.
- Evans, B. S.**, separation and determination of tin in alloys, ii, 826.
- colorimetric determination of cobalt in the presence of nickel, ii, 904.
- Evans, D. C.** See *A. S. Russell*.
- Evans, H. M., and G. O. Burr**, anti-sterility vitamin fat-soluble-*E*, i, 1022.
- Evans, R.** See *J. E. Humphries*.
- Evans, U. R.**, action of salt solutions on iron and steel in the presence of oxygen, ii, 140.
- colours due to thin films on metals, ii, 288.
- water-line corrosion of iron and steel, with special reference to the action of the so-called "inhibitors" of corrosion, ii, 687.
- oxygen distribution as a factor in the corrosion of metals, ii, 688.
- Everitt, B.** See *K. Myrbäck*.
- Evers, F.**, cataphoresis of metal sols in organic dispersion media, ii, 668.
- Evers, N.** See *C. W. Maplethorpe*.
- Ewald, J.** See *S. Dushman*.
- Ewald, W., and M. Póányi**, strength and elastic limits of natural rock-salt, ii, 371.
- Ewbank, E. K.** See *N. V. Sidgwick*.
- Ewing, D. T., and H. W. Schmidt**, electrolytic preparation of potassium bromate with carbon electrodes, ii, 551.
- Ewing, D. T., and H. A. Shadduck**, composition of a constant-boiling solution of hydrogen bromide in water, ii, 859.
- Ewing, W. W.**, preparation of electrolytic mercurous chloride in saturated potassium chloride for use in the calomel electrode, ii, 571.
- Eymer, L.**, action of chromic acid on indigotin, i, 1174.
- reducing action of sodium hyposulphite in alcoholic solution, ii, 582.
- Eynon, L.** See *J. H. Lane*.

F.

- Fabre, R.**, nature and variations of the aldehyde contained in the blood, i, 324, 852.
- extraction of alkaloids or various organic compounds contained in organs, i, 719.
- hæmatoporphyrin, ii, 1116.
- spectrophotometric determination of fluorescent bodies in solution, ii, 1212.
- Fabre, R., and P. Fredet**, localisation and excretion of alkylated barbituric acids, i, 1504.
- Fabre, R., and R. Frossard**, influence of the reaction of the medium on digestion by papain, i, 863.
- Fabre, R., and E. Parinaud**, dissociation of salts of narcotine and optimum conditions for its extraction, i, 962.
- Fabre, R.** See also *E. Bayle*, and *P. Fredet*.
- Fabry, C.**, atmospheric ozone as absorbing material for radiations, ii, 627.
- Facer, J. E.** See *S. G. P. Plant*.
- Färber, E.** See *H. Stobbe*.
- Fage, W. E.** See *E. A. Owen*.
- Fairbrother, F.**, electro-endosmosis. II., ii, 129.
- Fairbrother, F., and H. Mastin**, electro-endosmosis. I. and III., ii, 47, 302.
- Fairlie, D. M., and G. B. Brook**, determination of sodium in aluminium, ii, 241.

- Fairweather, D. A.**, electrolysis of salts of alkyloxy-acids, i, 631.
electrosynthesis of *n*-duotriacontane-dicarboxylic acid, i, 1236.
- Faivret, T.** See *A. Wahl*.
- Fajans, K.**, melting and heat of vaporisation of graphite, ii, 277.
properties of chemical compounds and atomic structure, ii, 623.
- Faldino, M.** See *G. R. Levi*.
- Falk, G.** See *M. Centnerszwer*.
- Falk, K. G., H. M. Noyes, and K. Sugiura**, enzyme action. XXX.
Lipolytic action of tissues of different animals, i, 471.
enzyme action. XXXIII. Lipase actions of extracts of the whole rat at different ages, i, 1360.
- Falk, K. G.** See also *H. M. Noyes*.
- Falke, E.** See *F. Kehrmann*.
- Falkenhagen, H.**, Paschen-Back effect in hydrogen, ii, 79.
- Famulener, L. W.** See *R. Kautsky*.
- Fanselow, J. R.** See *E. O. Kraemer*.
- Fantl, P.** See *E. Urbach*.
- Farnsworth, M.**, hydration of anhydrite, ii, 980.
- Farbenfabriken vorm. F. Bayer & Co.**, preparation of aromatic amines by reduction of the corresponding nitro compounds, i, 132.
preparation of pyrazolone derivatives, i, 301.
preparation of derivatives of basic hydroxyalkyl ethers, i, 374.
monoazo dyes, i, 598.
preparation of polymethine dyes, i, 839.
dyes of the pyrone series, i, 955.
alkylamine esters of aromatic amino-acids, i, 1419.
ether derivatives of ring-substituted mercury aromatic hydroxy-acids, i, 1473.
- Farbwerke vorm. Meister, Lucius, & Brüning**, preparation of *CC*-substituted succinimides, i, 376.
preparation of derivatives of hydroxy-anthranilic acid, i, 400.
preparation of acridine derivatives, i, 429.
preparation of plastic material from cellulose esters, i, 544.
monoazo dyes, i, 598.
preparation of acetic anhydride, i, 1233.
esters of aromatic alkyloxy- and alkylamino-carboxylic acids, containing iodine in the aliphatic side-chain, i, 1423.
preparation of 2-naphthol-4-carboxylic acid, i, 1426.
- Farbwerke vorm. Meister, Lucius, & Brüning**, dimethylaminoethylimide of camphoric acid, i, 1437.
- Fargher, R. G., and L. Higginbotham**, constituents of the wax of Egyptian sakellaridis cotton, i, 879.
- Fargher, R. G., and M. E. Probert**, alcohols present in the wax of American cotton, i, 879.
- Farnsworth, H. E.**, electronic bombardment of metal surfaces, ii, 169.
- Farnsworth, M.** See *G. L. Wendt*.
- Farr, H. V.** See *W. D. Collins*.
- Farren, J. W., and H. L. Fife** [with *F. E. Clark, and C. E. Garland*], chloro-ethers. II. Preparation of some new chloro-ethers and alkoxy-methyl esters, i, 1230.
- Farrer, E.** See *H. Stobbe*.
- Farrow, F. D., and G. M. Lowe**, flow of starch paste through capillary tubes ii, 509.
- Farrow, F. D., and S. M. Neale**, measurement of the viscosity of solutions of cotton in aqueous cuprammonium hydroxide and its significance as a test of textile quality, ii, 773.
- Farrow, F. D., and E. Swan**, absorption of water by dried films of boiled starch, ii, 506.
- Farrow, M. D., and C. K. Ingold**, tautomerism depending on the mobility of a hydroxyl group. I. Open-chain triad systems, i, 155.
- Fasold, H.** See *A. Hahn*.
- Fassbender, M.**, negative nitrogen band spectrum, ii, 350.
- Faibl, J.** See *J. Csapó*.
- Faulkner, I. J., and T. M. Lowry**, dynamic isomerism. XVII. Mutarotation of aluminium benzoylcamphor, ii, 632.
- Faurholt, C.**, aqueous solutions of carbon dioxide and carbonic acid, ii, 295.
aqueous solutions of carbamates and carbonates, ii, 396.
- Faust, O.**, binary liquid mixtures, ii, 29.
- Faust, T. H., and T. Spängler**, determination of chlorine in benzaldehyde and cinnamaldehyde, ii, 1000.
- Fawsitt, C. E.** See *L. S. Cash*.
- Fazi, Remo de**, indones. VI. Methods of preparation of indones, i, 263.
indones. VII. Constitution and synthesis of truxones, i, 269.
- Fazi, Remo de.** See also *Romolo de Fazi*.
- Fazi, Romolo de, and Remo de Fazi**, action of ultra-violet rays on alcoholic fermentation and on yeast, i, 475.

- Fearon, W.**, molecular weight of glycogen, i, 12.
- Fedorov, W. S.** See *K. Shaposchnikov*.
- Feenstra, T. P.** See *H. Zwaardemaker*.
- Fehér, D.**, and *I. Vági*, action of nitrites on the growth of plants. II., i, 488.
- Fehér, D.**, and *S. Vági*, action of sodium carbonate on germination and growth in plants, i, 1023.
- Fehse, W.** See *H. Alterthum*.
- Feick, R.**, colour of colloidal silver and mercury, ii, 1152.
- Feigl, F.**, qualitative microanalysis. II., ii, 435.
capillary-chemical reaction in spot-tests, ii, 509.
- Feigl, F.** [with *F. L. Lederer*], relation between atomic grouping and specific affinity. I., i, 170.
- Feigl, F.** [with *F. Pavelka* and *R. Schacherl*], co-ordination studies on the analytical behaviour of heavy metal sulphides, ii, 70.
- Feigl, F.**, and *A. Christiani-Kronwald*, use of oxalenediuramidoxime in the detection and determination of nickel, ii, 330.
- Feigl, F.**, and *R. Kobiliansky*, intermediate compounds formed during the esterification of oxalic acid with phenols, i, 1235.
- Feigl, F.**, and *G. Krauss*, complex-chemical methods for the volumetric determination of acidity, basicity, and aluminium content of aluminium solutions, ii, 329.
- Feigl, F.**, and *H. Ordelt*, use of pyrogallol in the gravimetric determination of bismuth and its separation from lead, ii, 442.
- Feigl, F.**, and *A. Sucharipa*, amides of mercurous salts, ii, 1184.
- Feist, K.**, and *H. Bestehorn*, oakwood tannin; preparation and purification of tannins. II., i, 566.
- Feist, K.**, and *G. L. Dschu*, alkaloids of the calumba root. III., i, 830.
- Fejér, A. von**, and *G. Hetényi*, metabolism in diseases of the liver. I. Carbohydrate metabolism in liver disease, i, 725.
- Feldmann, A.**, catalytic reduction by means of nickel and hydrogen, i, 1263.
- Feldtmann, G. A.** See *C. G. Schwalbe*.
- Felix, F.** See *H. Staudinger*.
- Felix, K.**, synthesis of the histones of the thymus gland, i, 1203.
- Felix, K.**, and *H. Rothler*, behaviour of ornithine, lysine, and putrescine in the surviving liver, i, 859.
- Fellenberg, T. von**, occurrence of iodine in nature. II. Determination of minute quantities of iodine, i, 329.
occurrence of iodine in nature. VI. Relation between the incidence of goitre and the iodine content of the environment, i, 329.
occurrence of iodine in nature. III. Iodine determinations on foodstuffs, manures, and Swiss mineral waters, i, 347.
occurrence of iodine in nature. IV. Evolution of elementary iodine from sea water, ii, 306.
occurrence of iodine in nature. V. Iodine content of air, ii, 316.
occurrence of iodine in nature. VII. Iodine content of rocks, geological formations, and minerals, and conditions for the accumulation of iodine in earths, ii, 321.
- Fellenberg, T. von**, and *H. Geilinger*, occurrence of iodine in nature. IX. Iodine liberation and accumulation by micro-organisms, i, 339.
- Fellenberg, T. von**, *H. Geilinger*, and *K. Schweizer*, occurrence of iodine in nature. VIII. Evolution of elementary iodine from earths, ii, 321.
- Feller, A.** See *K. Schaum*.
- Fellers, C. R.**, and *R. W. Clough*, determination of indole and skatole in bacterial cultures, i, 1015.
- Fells, H. A.**, and *J. B. Firth*, preparation and properties of silicic acid gel, ii, 390.
- Felsher, A. R.** See *C. C. Wang*.
- Felton, L. D.**, oxydase activity and isolation of pure cultures of bacteria, i, 1509.
indicator for testing the reducing power of bacteria, i, 1509.
- Fenwick, F.** See *R. G. van Name*.
- Ferguson, A.**, and *I. Vogel*, calculation of the equivalent conductivity of strong electrolytes at infinite dilution. I. Aqueous solutions, ii, 1163.
- Ferguson, A. L.**, and *G. van Zyl*, transfer resistance, ii, 547.
- Ferguson, J.**, dissociation pressures of hydrated double selenates, ii, 1063.
- Ferguson, J. B.**, light filter in interferometry, ii, 839.
magnetic form of ferrous oxide, ii, 846.
- Ferguson, J. B.**, and *W. S. Funnell*, vapour pressures of solutions of phenol and water at 75°, ii, 501.
- Ferguson, J. B.**, and *W. B. Hope*, heats of formation of phenol-water solutions at 75°, ii, 492.
- Ferguson, W. C.** See *A. McMillan*.

- Fermi, E.**, intensity of multiple lines, ii, 340.
relation between the constants of the infra-red bands of triatomic molecules, ii, 471.
- Fermi, E.**, and **F. Rasetti**, effect of an alternating magnetic field on the polarisation of the resonance radiation of mercury vapour, ii, 473, 839.
- Fernandes, L.**, co-ordination valency of two hydroxyl groups in the ortho position. I. Complexes of pyrocatechol and pyrogallol with acids of the molybdenum group, i, 912, 1061.
separation of thorium from zirconium and from the trivalent rare-earth metals, ii, 426.
isomorphism of zirconium sulphate and quadrivalent cerium sulphate, ii, 748.
isomorphism of quadrivalent uranium and zirconium compounds, ii, 1133.
- Fernandes, L.** See also **G. Canneri**.
- Fernández, O.**, ethylenic peroxides; oxygenase of the Bach-Chodat system, i, 769.
- Fernbach, A.**, and **S. Nicolau**, effect of nitrates on yeast, i, 477.
- Ferrari, A.**, crystal structure and isomorphism of the fluorides of lithium and magnesium, ii, 845.
X-ray analysis of the crystal structure of lead dioxide, ii, 1125.
- Ferro, M. R.**, bio-reduction, i, 340.
- Fetzer, W. R.**, device for estimating corrosion, ii, 996.
- Feulgen, R.**, and **K. Voit**, groups responsible for the nuclear reaction and nuclear coloration. II. Preparation of hydroxymethylfurfuraldehyde, i, 1477.
- Fichter, F.**, and **A. Christen**, electrochemical oxidation of anethole and isoeugenol, i, 813.
- Fichter, F.**, and **W. Kern**, formation of carbamide from ammonium hydrogen carbonate solution at the body temperature, i, 796.
- Fichter, F.**, and **P. Lotter**, electrochemical oxidation of iodobenzene, o-iodotoluene, and p-iodotoluene, i, 1055.
- Fichter, F.**, and **J. Meyer**, electrochemical oxidation of homologues of benzene. I. *m*-Xylene, i, 381.
electrochemical oxidation of homologues of benzene. II. Cymene, i, 800.
- Fichter, F.**, and **P. Müller**, chemical and electrochemical oxidation of *as-m*-xylydine and its mono- and dimethyl derivatives, i, 805.
- Fichter, F.**, and **F. Reichart**, "weighting" of silk with stannic chloride, ii, 193.
- Fichter, F.**, and **E. Stocker**, electrochemical oxidation of benzenesulphonic acid, toluene-*o*-sulphonic acid, and benzene-*p*-disulphonic acid, and the per-acids formed in the process, i, 239.
- Fiegel, A.** See **P. Rona**.
- Fieger, E. A.** See **C. O. Rost**.
- Field, E.** See **A. Henwood**.
- Field, H., jun.** See **A. V. Bock**.
- Field, (Miss) M. J., W. E. Garner**, and **C. C. Smith**, ionisation of aromatic nitro compounds in liquid ammonia. I., ii, 792.
- Fieser, L. F.**, absorbent for oxygen in gas analysis, ii, 238.
- Fieser, L. F.** See also **J. B. Conant**.
- Fife, H. R.** See **J. W. Farren**.
- Fikentscher, H.** See **K. Freudenberg**.
- Filippi, E.** See **E. Mameli**.
- Filonenko, E. P.** See **S. V. Lebedev**.
- Finck, J. L.**, and **R. M. Wilhelm**, variation with pressure of the boiling points of naphthalene, benzophenone, and anthracene, ii, 759.
- Finger, H.**, and **R. Gaul**, action of methyl cyanofornate on organomagnesium compounds, i, 1431.
- Finger, H.**, and **F. Kraft**, indigoid dyes of the pyridine series, i, 73.
- Fink, A.** See **M. Kohn**.
- Fink, D. E.**, metabolism during embryonic and metamorphic development of insects, i, 726.
- Fink, D. E.** See **J. H. Bodine**.
- Fink, H.** See **Hans Fischer**.
- Finkelstein, W.**, decomposition potentials of non-aqueous solutions, ii, 546.
- Finken, H.** See **E. Ott**.
- Finlay, H. J.** See **F. H. McDowall**.
- Finzi, C.**, alkylation by esters of toluene-*p*-sulphonic acid, i, 648.
derivatives of 1-naphthylamine-8-sulphonic acid, i, 654.
dinitro- and triamino-naphthalenes, i, 701.
- Fiore, O. de.** See **F. Zambonini**.
- Firth, J. B.**, and **F. S. Watson**, catalytic decomposition of hydrogen peroxide solution by animal charcoal; the production of highly active charcoals, ii, 310.
sorption of iodine and catalytic decomposition of hydrogen peroxide solution by "norit" charcoals, ii, 880.

- Firth, J. B.** See also *H. A. Fells*.
- Fischbach, W.** See *F. Mayer*.
- Fischbeck, K.**, electrochemical reduction of solid electrodes, ii, 1166.
- Fischenich, M.**, and *M. Péányi*, cause of conductivity of casein solutions, ii, 662.
- Fischer, A.** See *O. Fürth*.
- Fischer, A. H.** See *H. Freundlich*.
- Fischer, Ernst.** See *D. Vörlander*.
- Fischer, Eugen.** See *N. Tiesenegaard*.
- Fischer, F., H. Tropsch**, and *P. Dilthey*, reduction of carbon monoxide to methane with metal catalysts, ii, 982.
- Fischer, H.** See *E. Berl*.
- Fischer, Hans**, and *H. Beller*, synthesis of a tetrapyrrolethylene and of some 2:3-dimethylpyrrole derivatives, i, 1333.
- Fischer, Hans**, and *H. Fink*, synthesis of coproporphyrin by yeast and influencing factors, i, 105.
synthesis of coproporphyrin by yeast and influencing factors. II. Analysis of crystalline copper coproporphyrin from fresh yeast and the increase of porphyrins by the addition of substances, i, 866.
- Fischer, Hans**, and *M. Heyse*, tripyrromethanes. II., i, 76.
- Fischer, Hans**, and *J. Hilger*, natural porphyrins. XII. *Ætioporphyrin* from *urinoporphyrin*, i, 307.
- Fischer, Hans**, and *H. Hilmer*, *phylloerythrin*. II., i, 855.
- Fischer, Hans**, and *F. Lindner*, natural porphyrins. XIV. *Ooporphyrin* and its conversion into *hæmin ester*, i, 992.
natural porphyrins. XVI. *Kämmerer's porphyrin*, i, 997.
- Fischer, Hans**, and *J. Klarer*, synthesis of *xanthopyrrolecarboxylic acid*; synthesis of the acid scission products of blood pigment. III., i, 577.
- Fischer, Hans**, and *R. Müller*, natural porphyrins. XIII. Conversion of *hæmoporphyrin* into *mesoporphyrin* and its degradation to *ætioporphyrin*, i, 845.
natural porphyrins. XV. *Tetramethylhæmatoporphyrin ester* and its conversion into *ooporphyrin ester*, i, 846.
- Fischer, Hans**, and *C. Nenitzescu*, action of formaldehyde and substituted alcohols on pyrrole derivatives and a new synthesis of *isophonopyrrolecarboxylic acid*, i, 834.
- Fischer, Hans**, and *G. Niemann*, bile pigments. IX., i, 1198.
- Fischer, Hans.** See also *A. Stock*.
- Fischer, M. H.**, the colloid-chemical theory of water fixation in the organism, ii, 36.
- Fischer, O., E. Diepolder**, and *E. Wölfel*, substituted 4-aminoquinolines, i, 438.
- Fischer, O., Alfred Müller**, and *A. Vilsmeier*, action of phosphoryl chloride on aceto-methyl- and -ethyl-anilide; synthesis of 4-chloroisocyanocyanines, i, 439.
- Fischer, P.**, hydrogen overvoltage on alloys, ii, 44.
electrolytic preparation of hydrogen sulphide and sulphides, ii, 807.
electrolytic preparation of selenides and iodides, ii, 808.
- Fischer, W. M.**, supersaturated solutions. I. Mechanism of separation of salts from supersaturated solutions and the formation of rhythmic precipitates in gels, ii, 853.
- Fischer-Treuenfeld, A. von.** See *O. Mumm*.
- Fischl, V.** See *H. John*.
- Fischler, F.**, and *F. Ottensooser*, hypoglycæmia; identity of intoxication due to dextrose starvation with the hypoglycæmic reaction, i, 715.
- Fischli, A.** See *P. Ruggli*.
- Fisher, D. J.**, crystallography of methyl-diphenylmethyldichloroamine, ii, 942.
- Fisher, N. F.**, and *E. B. McKinley*, presence of toxic and insulin-like substances in oranges, grape fruit, and lemons, i, 1016.
- Fisk, C. H.**, and *S. S. Sokhey*, excretion of ammonia and fixed base after administration of acid, i, 723.
- Fitz, W.** See *P. Pfeiffer*.
- Flaschenträger, B.**, micro-determination of hydroxyl groups, ii, 999.
- Fleming, N.** See *E. A. Owen*.
- Flemming, W.** See *F. Arndt*.
- Fletcher, F. A.** See *R. R. Read*.
- Fleury, P.**, laccase and the laws of enzyme action, i, 471.
laccase. IV. Action of sodium chloride; influence of the reaction of the medium, i, 614.
laccase. V. Action of hydrocyanic acid, i, 1360.
- Fleury, P.**, and *H. Levaltier*, determination of nitrogen by Kjeldahl's method and its modifications, ii, 66, 434.
- Fleury, P.**, and *P. Tavernier*, reducing action of dextrose on copper salts in alkaline and acid solution, ii, 605.
- Fleyscher, M. H.**, electrometric titration of antimony and tin by potassium dichromate, ii, 243.

- Fleysher, M. H.** See also **H. S. Harned**.
- Flórov, K. W.**, S-shaped adsorption curve, ii, 657.
- Flössner, O.**, echinococcal fluid. II., i, 329.
- Flössner, O.**, and **F. Kutscher**, *Petromyzon fluviatilis*, L. I. Detection of adenine, xanthine, methylguanidine, leucine, tyrosine, fatty acids of the $C_nH_{2n}O_2$ series, and lactic acid. II. Detection of neosine, the chief extractive of *Petromyzon*, and of betaine, choline, and crangitine, i, 327.
chemical investigation of the sturgeon (*Acipenser sturio*), i, 720.
- Florence, G.** See **L. Hugounenq**.
- Florentin, D.** See **M. Marquayrol**.
- Floret, E.** See **W. Diltney**.
- Flügel, W.** See **F. Ephraim**.
- Foa, E.**, specific heat of liquids according to the theory of corresponding states, ii, 1138.
- Fock, E.**, and **S. A. Holbøll**, distribution of blood-sugar between corpuscles and plasma; studies on carbohydrate metabolism, i, 1486.
- Focken, C. M.** See **S. P. McCallum**.
- Fodor, A.**, **A. Bernfeld**, and **R. Schönfeld**, nature of the peptide-cleaving enzyme of yeast macerates, i, 1215.
- Fodor, A.**, and **C. Epstein**, kinetics of the cleavage of peptides by yeast enzymes, i, 1214.
- Fodor, A.**, and **A. Reifenberg**, nature of the process of germination; determination of proteins by means of adsorption applied to the decomposition of proteins in germinating pea seeds, i, 756.
fermentation of dried tobacco. I. Methods for separating nicotine and ammonia. II. Enzymic production of volatile products from nicotine under the influence of tobacco-leaf extracts, i, 1519.
- Fodor, A.**, and **A. Rosenberg**, separation methods by means of specific adsorption, ii, 1060.
- Fodor, A.**, and **R. Schönfeld**, adsorption of the phosphoproteins of yeast by various adsorbents and the elution of the adsorbates, ii, 857.
- Foerster, F.**, formation and decomposition of polythionates, ii, 148, 229, 701.
- Foerster, F.**, **A. Brosche**, and **C. Norberg-Schulz**, sodium and potassium salts of sulphurous acid, ii, 120.
- Foerster, F.**, and **K. Kubel**, sulphurous acid and its salts. II. Decomposition of sulphites at red heat, ii, 120.
- Förster, J.** See **Z. Ernst**, and **N. Frank**.
- Foex, G.**, various magnetic states of an ion, ii, 345.
- Foex, G.**, and **L. Royer**, diamagnetism of nematic substances, ii, 755.
- Fogg, H. C.** See **M. D. Williams**.
- Folberth, W.** See **A. Löwenbein**.
- Folts, H.** See **E. K. Carver**.
- Foot, H. W.**, system, sodium nitrate-sodium sulphate-water and the minerals darapskite and nitroglauberite, ii, 786.
- Foot, P. D.**, nitrogen and uranium, ii, 18.
spectroscopy and Bohr's theory of atomic structure, ii, 624.
- Foot, P. D.**, **W. F. Meggers**, and **R. L. Chenault**, visible radiation from solid targets, ii, 80.
- Foot, P. D.**, and **F. L. Mohler**, photoelectric ionisation of caesium vapour, ii, 919.
- Foot, P. D.**, **T. Takamine**, and **R. L. Chenault**, excitation of forbidden spectral lines, ii, 166, 916.
- Foran, H. P.**, preparation of halogen-substituted ethers, i, 774.
contraction of ethyl alcohol on dilution, ii, 101.
- Forbes, G. S.**, and **G. R. Harrison**, constricted mercury arc as a source of light for photochemical work, ii, 1194.
- Forcrand, de**, xenon hydrate, ii, 812.
- Ford, (Miss) G. W.** See **D. Hanson**.
- Fordyce, J. A.**, **L. Rosen**, and **C. N. Myers**, syphilis. IX. Arsenic content of the blood after intravenous injection of neosalvarsan. X. Arsenic in human milk after intravenous injection of salvarsan. XI. Partition of arsenic in serum and clot after intravenous administration of salvarsan, neosalvarsan, and silver salvarsan. XII. Arsenic content of the blood after intravenous injection of tryparsamide. XIII. Arsenic content of the cerebrospinal fluid after intravenous injection of hypertonic saline solutions and neosalvarsan. XIV. Localisation and fate of salvarsan, neosalvarsan, silver salvarsan, and tryparsamide in the viscera after intravenous administration in rats, i, 189.
syphilis. XV. Excretion of arsenic through the kidney after intravenous administration of salvarsan, neosalvarsan, silver salvarsan, and tryparsamide, i, 611.

- Foresti, B.**, catalysis by the action of subdivided metals. III. Heat of adsorption of hydrogen on nickel, ii, 692.
- Foresti, B.** See also *M. Padoa*.
- Forestier, H.**, and *G. Chaudron*, transformation points of solid solutions of alumina or chromic oxide in ferric oxide, ii, 534.
magnetic transformation points in the system, ferric oxide-magnesia, ii, 1159.
- Forrer, R.**, artificial magnetic anisotropy of nickel, ii, 486, 639.
- Forrest, J.**, magnetic quality in crystals, ii, 1133.
- Forrester, G. C.** See *M. Gomborg*.
- Forster, J.** See *Z. Ernst*.
- Forster, M. O.**, and *K. A. N. Rao*, *d*-mannitol from *Gardenia turgida*, i, 1295.
- Forster, M. O.**, and *P. P. Shukla*, camphane series. XL. Constitution of Manasse's hydroxycamphor, i, 1161.
- Forster, R. B.**, and *C. M. Keyworth*, arylamine salts of the naphthalene-sulphonic acids. II. Salts of α - and β -naphthalenesulphonic acids, i, 126.
- Forster, T. A.** See *I. M. Heilbron*.
- Forstmann, W.** See *A. Lottermoser*.
- Forstner, G. E.** See *E. A. Cooper*.
- Forsyth, R.**, *C. I. Kelly*, and *F. L. Pyman*, isoquinoline derivatives. IX. Preparation and reduction of isoquinoline and its derivatives, i, 1167.
- Forsyth, W. G.**, and *F. L. Pyman*, tautomerism of amidines. V. Methylation of glyoxalines by diazomethane; bromination of 4(or 5)-phenylglyoxaline, i, 699.
- Fosse, R.**, *P. Hagene*, and *R. Dubois*, analysis of cyanamide in its calcium compound, ii, 76.
- Fosse, R.**, and *A. Hieulle*, identification of glyoxylic acid by reaction with hydrazine and xanthhydrol to form dioxanthylhydrazone-glyoxylic acid, i, 1130.
colour reaction, supposed specific for formaldehyde, produced by glyoxylic acid, ii, 162.
- Foster, D. L.**, relation between the pancreas and the carbohydrate metabolism of muscle. II. Antiglyoxalase and glyoxalase, i, 1495.
- Foster, J. S.**, Stark effect patterns in helium, ii, 831.
new combination series in the helium spectrum, ii, 1099.
- Fouard, E.**, collodion ultra-filtration membrane for physico-chemical analysis of solutions, ii, 324.
- Found, C. G.** See *I. Langmuir*.
- Fourneau, E.** See *Les Établissements Poulenc Frères*, and *A. Girard*.
- Fournier, G.**, absorption of β -rays by matter, ii, 176, 622.
half-value period of radium-*E*, ii, 1110.
- Fournier, L.**, and *A. Schwartz*, curative action of basic bismuth 3-acetamido-4-hydroxyphenylarsinate in syphilis, i, 1006.
- Fowler, A.**, structure of spectrum of ionised nitrogen, ii, 250.
spectrum of silicon at successive stages of ionisation, ii, 452.
- Fowler, G. J.**, and (*Miss*) *R. K. Christie*, symbiosis of seeds and bacteria, i, 344.
- Fowler, G. J.**, and *T. Dinanath*, biogenesis of Mahua oil, i, 346.
- Fowler, G. J.**, and *M. A. Malandkar*, examination of some gum enzymes, i, 1437.
- Fowler, G. J.**, and *V. Subramanyan*, acetone-producing organisms, i, 1216.
- Fowler, R. H.**, statistical theory of dissociation and ionisation by collision, with applications to the capture and loss of electrons by α -particles, ii, 7.
application of the correspondence principle to the theory of line-intensities in band spectra, ii, 623.
stopping power of hydrogen atoms for α -particles, ii, 834.
summation rules for the intensities of spectral lines, ii, 1104.
- Fox, E. L.** See *F. G. Benedict*.
- Fox, F. W.**, and *J. A. Gardner*, origin and destiny of cholesterol in the animal organism. XIV. Cholesterol metabolism in normal breast-fed infants, i, 859.
- Fox, F. W.** See also *J. A. Gardner*.
- Fränkel, S.**, and *C. Buhlea*, apoquinine, i, 573.
- Fränkel, S.**, and *N. Diamant*, aminoquinotoxine, i, 574.
- Fränkel, S.**, and *O. Karpfen*, lipoids. XX. Hypocerebric acid (Hypohirnsäure), a new triaminomonophosphatemonosulphatide from human brain, i, 720.
- Fränkel, S.**, *C. Tritt*, *M. Mehrer*, and *O. Herschmann*, aminoquinine, i, 573.
- Fraenkel, W.**, and *W. Goetz*, kinetic studies on solid metals. Decomposition of the compound Al_2Zn_3 , ii, 314.
space velocity of transformation of the modifications of sulphur, ii, 557.

- Francesconi, L., M. Manfredi, and R. Astengo**, genesis of ethereal oils in plants, i, 759.
- Francis, A. G., and A. T. Parsons**, determination of oxides of nitrogen (except nitrous oxide) in small concentration in the products of combustion of coal gas and in air, ii, 713.
- Francis, A. W.**, directive influence of substituents in the benzene ring. III. Active agent in aqueous bromination, i, 1261.
directive influence of substituents in the benzene ring. IV. Partial bromination of derivatives of aniline, i, 1399.
- Francis, A. W., and A. J. Hill**, directive influence of substituents in the benzene ring. I. Chemical determination of the meta-isomeride in some disubstituted derivatives of benzene, ii, 163.
- Francis, A. W., A. J. Hill, and J. Johnston**, directive influence of substituents in the benzene ring. II. Relative rates of bromination of certain *o*-, *m*-, and *p*-isomerides, i, 1141.
- Francis, W., and R. V. Wheeler**, oxidation of banded bituminous coal at low temperatures; composition of coal, i, 373.
resolution of coal by oxidation, i, 644.
properties and constitution of coal ulmins; composition of coal, i, 1389.
- Franck, J.**, atomic and molecular collisions and their chemical significance, ii, 836.
elementary processes of photochemical reactions, ii, 1077.
- Franck, J.** See also *P. M. S. Blackett, and M. Born*.
- Francke, (Fr.) C.**, variation of dielectric constant with pressure for organic liquids at pressures up to 800 atmospheres, ii, 741.
- François, M., and C. Lormand**, determination of tartaric acid by precipitation as calcium tartrate, ii, 75.
- François, M., and L. Seguin**, amorphous quinine iodobismuthate, i, 1084.
- François, (Mlle.) T.** See *E. André*.
- François-Dainville.** See *F. Bordas*.
- Frank, L.**, property-composition curves of binary liquid mixtures, ii, 188, 648.
- Frank, N., and F. Doleschall**, determination of diastase in faeces, i, 461.
- Frank, N., and J. Förster**, glycogen content of liver. I. Behaviour of the blood-sugar and liver glycogen after administration of morphine, i, 1503.
- Frank, O.**, theory and construction of lever manometers, ii, 995.
- Frank, W.** See *H. Wieland*.
- Franklin, R. G., R. E. W. Maddison, and L. Reeve**, experimental technique of photochemistry. II. Determination of energy distribution and total energy in radiation from quartz mercury lamps, ii, 809.
- Franssen, A.**, action of organo-magnesium compounds on naphthaquinones. I. Action of magnesium phenyl bromide on α -naphthaquinone, i, 1146.
- Franzen, G.**, nature of the substances which cause the production of "protective enzymes" in the organism, i, 1007.
- Franzen, H., and F. Schmitt**, formation of citric acid from ketipinic acid [diketo adipic acid], i, 231.
- Frazer, G. S.**, effect of cropping on the active potash of the soil, i, 1523.
- Frazer, J. C. W., and C. E. Grieder**, heats of oxidation of carbon monoxide and of hydrogen by manganese dioxide at 0°, ii, 1064.
- Frazer, J. C. W.** See also *A. Grollman*.
- Frazer, J. E., and H. B. Hartley**, conductivity of uni-univalent salts in methyl alcohol, ii, 1163.
- Fred, E. B., and W. H. Peterson**, nitrogen in algæ, i, 1122.
- Fred, E. B., W. H. Peterson, and W. R. Carroll**, occurrence of a red-pigment-producing organism in maize mash of the acetone-butyl alcohol fermentation, i, 1013.
- Fred, E. B., W. H. Peterson, and H. R. Stiles**, biochemistry of the granulated lactic acid bacteria from cereals, i, 1014.
- Fred, E. B.** See also *W. H. Peterson, and H. R. Stiles*.
- Frederick, R. C.**, preparation of Nessler's solution, ii, 435.
- Frederick, R. C., and E. R. Webster**, spectroscopic lighting unit, ii, 588.
- Fredet, P., and R. Fabre**, localisation in the organism of alkyl derivatives of barbituric acid, i, 467.
- Fredet, P.** See also *R. Fabre*.
- Freedman, L.** See *H. E. Dubin*.
- Freeman, B.** See *J. M. Nelson*.
- Freeth, F. A.**, deduction of the type of a two-component system by means of the addition of a third component, ii, 669.
- Frejka, J., and F. Balaš**, abietic acid, i, 669, 1422.
- Frejka, J., and J. Vitha**, bromonovocaine, i, 663, 1416.

- Frene, *M.*, theory of extraction, ii, 506.
- French, *H. E.* See *F. N. Peters, jun.*
- Frenkel, *J.*, theory of adsorption and allied phenomena, ii, 194.
motion of a free electron in the field of plane electro-magnetic waves, ii, 477.
theory of metals, ii, 479.
- Frenzel, *C.*, calculation of the work of chemical changes involving variable concentrations, ii, 119.
- Frèrejacque, *M.*, structure of phenylhydrazones of dextrose, i, 635.
- Frese, *E.* See *K. von Auwers.*
- Fresno, *C. del.*, electronic theory of valency and the electrolytic oxidation of formaldehyde, ii, 267.
potentiometric standardisation of potassium permanganate solution with sodium oxalate, ii, 602, 904.
potentiometric indication in the action of halogens on ferrocyanides, ii, 1192.
- Freudenberg, *E.* See *O. Budde.*
- Freudenberg, *K.*, and *F. Blümmel*, tannins and similar substances. XVII. Hamameli tannin. III., i, 51.
- Freudenberg, *K.*, and *A. Doser*, acetone sugars. V. Synthesis of aminohexoses from galactose, i, 366.
- Freudenberg, *K.*, and *H. Fikentscher*, the 3:4-dimethoxyphenylpyrazoline obtained from catechin, i, 69.
- Freudenberg, *K.*, *H. Fikentscher*, and *M. Harder*, tannins and similar substances. XVIII. Catechin, i, 419.
- Freudenberg, *K.*, *H. Fikentscher*, *M. Harder*, and *Otto Schmidt*, tannins and similar substances. XX. Conversion of cyanidin into catechin, i, 1165.
- Freudenberg, *K.*, *H. Fikentscher*, and *W. Wenner*, tannins and similar substances. XIX. Constitution of catechin, i, 692.
- Freudenberg, *K.*, *H. von Hochstetter*, and *H. Engels*, derivatives of maltose and dextrose, i, 635.
- Freudenberg, *K.*, and *O. Huber*, steric series. V. Transformation of *D*-lactic acid into *L*-alanine, i, 229.
- Freudenberg, *K.*, and *L. Markert*, steric series. VI. Configuration of mandelic acid, i, 1275.
- Freudenberg, *K.*, and *W. Stoll*, isomeric *C*-substituted pyrazolines, i, 70.
- Freudenberg, *K.*, and *E. Weber*, micro-determinations of acetyl groups, ii, 446.
- Freudenberg, *K.*, and *A. Wolf*, acetone sugars. VI. Constitution of diacetone-mannose [mannose diisopropylidene ether], i, 367.
- Freudenberg, *K.* See also *A. Wohl.*
- Freund, *E.*, and *A. Sittenberger-Kraft*, hydroxyproteic acid fraction of urine, i, 723.
- Freund, *E.* See also *R. Weiss.*
- Freundler, *P.*, and (*Mlle.*) *Y. Laurent*, photochemical properties of stannous iodide, ii, 22.
properties of stannous iodide, ii, 1085.
- Freundlich, *H.*, sols with non-spherical particles, ii, 1153.
- Freundlich, *H.*, and *S. K. Basu*, influence of agitation on the coagulation of hydrophobic sols, ii, 522.
- Freundlich, *H.*, and *G. Ettisch*, electrokinetic and thermodynamic potentials, ii, 873.
- Freundlich, *H.*, and *A. H. Fischer*, kinetics of the oxidation of thiocarbamide by charcoal, ii, 307.
- Freundlich, *H.*, and *H. J. Koros*, viscosity and elasticity of soap solutions, ii, 663.
- Freundlich, *H.*, and *L. F. Loeb*, electro-dialysis, i, 96.
- Freundlich, *H.*, and *W. Malchow*, iron carbonyls, ii, 231.
- Freundlich, *H.*, and *F. Moor*, action of silver sol on arsenious sulphide sol, ii, 198.
- Freundlich, *H.*, and *F. Oppenheimer*, rate of crystallisation of undercooled aqueous sols, ii, 203.
- Freundlich, *H.*, and *A. Rosenthal*, kinetics of the sol-gel transformation of concentrated ferric oxide sols, ii, 967.
- Freundlich, *H.*, and *E. Schalek*, viscosity and elasticity of colloidal solutions, ii, 112.
- Freundlich, *H.*, *F. Stapelfeldt*, and *H. Zocher*, vanadium pentoxide sol. I. Streaming anisotropy, ii, 199.
vanadium pentoxide sol. II. The vortex cross, ii, 200.
- Freundlich, *H.*, and *H. P. Zeh*, influence of valency on coagulation and cataphoresis, ii, 115.
- Frey, *A.*, birefringency in colloids, ii, 200.
- Frey, *F. E.* See *W. P. Yant.*
- Frey, *L.* See *S. Kostytshev.*
- Friauf, *J. B.* See *R. G. Dickinson.*
- Fricke, *H.*, Compton's theory of *X*-ray scattering, ii, 941.
- Fricke, *H.*, and *O. Glasser*, secondary electrons produced by hard *X*-rays in light elements, ii, 16.
- Fricke, *H.*, and *S. Morse*, electrical conductivity of disperse systems. I. Cream, i, 608.

- Fricke, K.**, chemical constituents of the leaves of certain deciduous trees, i, 764.
- Fricke, R.**, hydration of molecules and ions, ii, 36.
viscosity of rubidium hydroxide solutions, ii, 389.
two crystal forms of zinc hydroxide, ii, 484.
activity of the hydroxyl ion in concentrated lyes on the basis of electrode and liquid potential measurements, ii, 539.
influence of finely porous materials at the liquid boundaries on liquid potential, ii, 544.
ageing of metallic hydroxides, ii, 578.
separation of gallium from aluminium and iron, ii, 717.
method for investigating diffusion in gels, ii, 965.
- Fricke, R.**, and **W. Blencke**, gallium, ii, 417.
- Fricke, R.**, and **L. Hauestadt**, complex compounds of beryllium. II., ii, 886.
- Fricke, R.**, and **C. Rohmann**, differences of potential at the boundaries of solutions, ii, 41.
- Fricke, R.**, and **F. Buschhaupt**, complex compounds of beryllium. I., ii, 886.
molecular compounds of halogen-metal acids and acid amines, ii, 894.
- Fricke, R.**, and **G. Spilker**, preparation of *o*-ethylthiophenol by hydrogenation of thionaphthen, i, 249.
[non-catalytic] reduction of thionaphthen, i, 1311.
- Fricke, R.**, and **O. Windhausen**, ageing of metal hydroxides, and the system, chromiumhydroxide-chromite-sodium hydroxide, ii, 35.
- Fricke, R.** See also **L. Havestadt**.
- Fried, E.**, and **W. Pauli**, general colloid chemistry. XIII. Analysis and constitution of silver sols. III., ii, 390.
- Fried, F.** See **A. Eucken**.
- Friedel, E.**, smectic compounds and X-rays, ii, 186.
- Friedel, G.**, ethyl anisylidene-*p*-aminocinnamate, i, 664.
symmetry between growth and diminution in size of crystals, ii, 271.
fatty acids, ii, 272.
- Friedenberger, G.** See **M. Busch**.
- Frieder, J.** See **E. Fromm**.
- Friederich**. See **M. Marquayrol**.
- Friederich, E.**, properties of simple compounds and types of the solid state, ii, 374.
- Friederich, E.**, and **L. Sittig**, preparation and properties of nitrides, ii, 419.
preparation and properties of carbides, ii, 705.
m. p. of inorganic compounds and of elements, ii, 848.
high-melting lower oxides, ii, 889.
- Friederich, P.** See **K. Schaum**.
- Friedländer, P.**, indigoid dyes of the naphthalene series, i, 956.
- Friedli, H.**, ultra-violet absorption spectra of hæmoglobin derivatives; chemical constitution of blood pigments, ii, 179.
- Friedmann, L.** See **B. M. Margosches**.
- Friedrich, F.** See **A. Lottermoser**.
- Frieling, L.** See **C. Weygand**.
- Friend, J. N.**, determination of dissolved oxygen, ii, 326.
periodic sphere and position of the rare-earth metals, ii, 393.
- Friend, J. N.**, and **J. S. Tidmus**, influence of emulsoids on the rate of dissolution of zinc in solutions of lead, nickel, and copper salts, ii, 306.
- Fries, F. A.** See **B. Helferich**.
- Fries, K.** [with **K. Bartens**, **E. Pusch**, and **K. Saftien**], oxindigo[3:3'-diketo- $\Delta^{2:2'}$ -dicoumaran], i, 567.
- Fries, K.**, and **K. Billig**, derivatives of 2:3-diamino-1:4-naphthaquinone, i, 938.
- Fries, K.**, and **M. Nöhren**, *bz*-hydroxycoumarone compounds, i, 954.
- Friesse, H.** See **H. Scheibler**.
- Frischer, M.** See **B. M. Margosches**.
- Frith, A. B.** See **M. Rabinovitch**.
- Fritz, G.**, resorption of bismuth in relation to bismuth intoxication, i, 334.
- Fritz, G.**, and **B. Paul**, a simple method for taking samples of blood in the Hagedorn-Jensen blood-sugar determination, i, 1486.
- Fritzmann, E.** See **L. Tschugaev**.
- Frivold, A.**, anomalous behaviour of strong electrolytes, ii, 396.
- Fröhlich, A.**, and **A. Solé**, influence of acids and alkalis on the action of some convulsive poisons, i, 334.
- Frölich, P. K.**, carbon error in the quantitative deposition of nickel and iron from complex oxalate electrolytes, ii, 604.
- Fröschl, I.**, constitution of phosphoric acid, ii, 19.
- Frohnmayr, W.** See **R. Glocker**.
- Fromageot, C.**, adsorption and cataphoresis, ii, 128.

- Fromageot, C.**, and **R. Wurmser**, comparative adsorption of some organic acids and their sodium salts, ii, 384.
- Fromageot, C.** See also **V. Henri**.
- Fromm, E.** [with **H. Barrenscheen**, **J. Frieder**, **L. Pirk**, and **R. Kapeller**], derivatives of cyanamide, i, 594.
- Fromm, E.**, and **L. Engler**, trithioacetaldehydes and the mechanism of their transformations, i, 1231.
- Fromm, E.**, and **H. Jörg**, derivatives of monothioethylene glycol, i, 352.
- Fromm, E.**, and **P. Szendrő**, derivatives of di-*o*-tolylhydrazodithiocarbonamide, i, 985.
- Fromm, E.**, and **A. Truka**, action of benzoyl chloride on 4- and 1-phenylthiosemicarbazide, i, 703.
- Frossard, R.** See **R. Fabre**.
- Frumkin, A.**, phase boundary forces at gas-liquid interfaces. II. Adsorption and orientation of molecules of aliphatic compounds, ii, 109.
potential differences between liquids and air, ii, 544.
theory of adsorption and partition, ii, 856.
simple method of testing Gibbs' theorem, ii, 856.
capillary curves of higher fatty acids and the equation of state of the surface film, ii, 856.
phase boundary forces at gas-liquid interfaces. III. Electrical properties of unimolecular films of insoluble substances, ii, 873.
- Fryling, C. F.** See **F. O. Rice**.
- Fuchs, E.** See **B. Neumann**.
- Fuchs, R.** See **G. Heller**.
- Fuchs, W.**, and **E. Honsig**, simple laboratory apparatus for electro-dialysis, ii, 897.
- Füchtbauer, C.**, and **E. Holm**, influence of temperature on the ultra-violet absorption bands of oxygen; short-wave iodine spectrum, ii, 626.
- Füchtbauer, C.**, **F. Waibel**, and **E. Holm**, absorption line of the iodine atom, ii, 338.
- Fürth, O.**, may insulin affect the assimilatory or dissimilatory functions of oxygenated yeast? i, 107.
- Fürth, O.**, and **A. Fischer**, determination of the tyrosine content of proteins. III, ii, 448.
- Fürth, R.**, dielectric constants of good conductors, ii, 631.
physical chemistry of colouring matters. I. Measurement of the electric charge of solutions of colouring matters, ii, 1057.
- Fürth, R.**, and **R. Pechhold**, physical properties of serum on addition of "water-binding" substances, ii, 1056.
- Fürth, W. E.**, oxidation of uric acid with iodine, i, 1462.
- Fues, E.**, spectroscopic shift law. I, ii, 340.
- Fujimaki, Y.**, action of potassium cyanide and copper on the isolated frog's heart, i, 333.
- Fujimoto, G.** See **A. L. Dean**.
- Fujio, C.** See **S. Komatsu**.
- Fujioka, Y.** See **S. Nakamura**.
- Fujita, A.**, electrical properties and ionic permeability of membranes. III. Potential differences at parchment membranes, ii, 1151.
- Fujita, A.** See also **L. Michaelis**.
- Fujumura, Y.** See **B. Kubota**.
- Fukuda, M.**, spectrum of mercury under heavy current excitation, ii, 613.
change of wave-lengths for certain lines of zinc, cadmium, and mercury in a condensed discharge, ii, 1101.
- Fukuda, M.** See also **T. Takamine**.
- Fuller, A. T.**, and **J. Kenyon**, resolution of α -terpineol, i, 48.
- Fulmer, E. I.**, effect of ammonium salts on the swelling of colloids and the growth of yeast at various temperatures, i, 1508.
- Fulmer, E. I.** See also **L. M. Christensen**.
- Fulton, H. R.** See **W. W. Coblenz**.
- Fulton, J. D.** See **T. S. Patterson**.
- Funck, M.** See **K. Schaum**.
- Funk, C.**, and **S. Kon**, simplified method of micro-combustion; the micro-Dennstedt method, ii, 998.
- Funk, C.** See also **H. E. Dubin**, and **S. Kon**.
- Funk, H.**, formation of aluminium borides, ii, 705.
- Funk, H.**, and **H. Winter**, determination of boric acid in presence of aluminium, iron, or chromium salts, ii, 714.
- Funke, A.** See **H. Gault**.
- Funke, K.** See **E. Philippi**, and **A. Zinke**.
- Funnell, W. S.** See **J. B. Ferguson**.
- Furman, N. H.**, diphenylamine as indicator in the reduction of vanadic acid, ii, 442.
- Furusawa, K.**, muscular exercise, lactic acid, and the supply and utilisation of oxygen. IX. Muscular activity and carbohydrate metabolism in the normal individual, i, 849.
muscular exercise, lactic acid, and the supply and utilisation of oxygen. X. Oxygen intake during exercise while breathing mixtures rich in oxygen, i, 993.

- Furusawa, K., A. V. Hill, C. N. H. Long, and H. Lupton**, muscular exercise, lactic acid, and the supply and utilisation of oxygen. VII.—VIII., i, 92.
- Fuse, N.**, cetacea. IX. Serological investigation of the biological relationship of various types of whale, i, 1348.
- cetacea. X. Synovial fluid of whales, i, 1348.
- cetacea. XVII. Peritoneal fluid, i, 1349.
- comparative biochemistry of urine, i, 1350.
- Fuson, R. C.**, naphthalene and the centroid structure, i, 253.
- bromo- α -naphthols and orientation of certain classes of disubstituted naphthalene derivatives, i, 540.
- quinoline and the centroid structure, i, 1098.
- Fussgänger, R.** See *J. von Braun*.
- G.**
- Gaarder, T.**, and **O. Hagem**, nitrification in acid solutions, i, 480.
- Gabel, G. O.**, $\Delta\alpha$ -hypogaëic anhydride, i, 504.
- interaction of ethylene oxide and aniline, i, 535.
- Gadamer, J., M. Oberlin, and A. Schoeler**, synthesis of aporphine, i, 576.
- Gadamer, J., M. Thiessen, and K. Winterfeld**, chelidonium alkaloids. III., i, 287.
- Gadamer, J., K. Winterfeld, and A. Stichel**, chelidonium alkaloids. III., i, 284.
- Gädke, W.** See *O. Diels*.
- Gainsborough, H.** See *J. A. Gardner*.
- Galanos, S.** See *R. Dietzel*.
- Galbrun, G.** See *Max Polonovski*.
- Gale, R. C.**, "temper" colours [of steel], ii, 109.
- Galecki, A.**, physico-chemical studies on gold hydrosols, ii, 516.
- Galizzi, A.** See *R. Ciusa*.
- Gall, H.**, and **W. Manchot**, catalytic hydrogenation of inorganic substances, ii, 412.
- Gall, H.** See also *W. Manchot*.
- Gallerani, G.**, pyrrole and melanius; spectrophotometric studies, ii, 266.
- Galley, R.** See *G. Wiegner*.
- Gallotti, M.** See *G. Charrier*.
- Galt, R. L.** See *S. A. Koser*.
- Galwialo, M. J.**, photosynthesis of carbohydrates, i, 870.
- Gambarjan, S.**, benzoyl peroxide and secondary amines, i, 1260.
- Gamble, J. L.**, and **S. G. Ross**, dehydration following pyloric obstruction, i, 1352.
- Gammal, C. A.** See *M. C. Taylor*.
- Ganassini, D.**, and **U. Santi**, does a bismuth cacodyl exist? i, 893.
- Gandelman, A.** See *P. Petrenko-Kritschenko*.
- Ganesan, A. S.**, polarisation of light scattered by organic vapours, ii, 643.
- Ganguly, K. L.**, halogenation of 2:4:6-trinitrotoluene, i, 647.
- Ganguly, K. L.** See also *G. Schultz*.
- Gans, R.**, reversible permeability, ii, 173.
- Gante, J.** See *A. Schaarschmidt*.
- Garard, I. D.**, and **G. E. Duckers**, preparation and properties of some protected silver sols, ii, 391.
- Garbutt, C. D.** See *G. W. Gray*.
- Garcia, F.** See *A. H. Wells*.
- Gardner, J. A.**, and **F. W. Fox**, determination of cholesterol and its esters in tissues. II., i, 182.
- Gardner, J. A.**, and **H. Gainsborough**, cholesterol secretion in the urine. I., i, 1204.
- Gardner, J. A.** See also *F. W. Fox*.
- Garelli, F.**, cryoscopy of solutions of gases in various solvents, ii, 1151.
- Garey, R. M.** See *A. Henwood*.
- Garland, C. E.**, and **E. E. Reid**, derivatives of cyclohexanone, i, 1280.
- Garland, C. E.** See also *J. W. Farren*.
- Garlock, B.** See *V. G. Heller*.
- Garner, W. E.**, biochemistry of muscle contraction, i, 607.
- heterogeneous catalysis, ii, 140.
- critical increment of chemical reactions, ii, 552, 1167.
- Garner, W. E.**, and **E. A. Ryder**, alteration in molecular volume of the normal monobasic fatty acids, ii, 355.
- Garner, W. E.**, and **S. W. Saunders**, explosion of acetylene and nitrogen. IV. Spectra of explosions of gases containing hydrogen, carbon, nitrogen, and oxygen, ii, 627.
- Garner, W. E.** See also (*Miss*) *M. J. Field*.
- Garrard, J. D.**, preparation of dust-free liquids by distillation, ii, 704.
- Garratt, D. C.** See *C. T. Bennett*.
- Garreau, (Mlle.) Y.** See *W. Mestrezat*.
- Garrison, A.**, behaviour of silver iodide in the photo-voltaic cell. II. New type of silver iodide photo-voltaic cell, ii, 212.
- photomagnetic properties of the silver halides, ii, 371.

- Garry, R. C.**, determination of uric acid by the Hopkins-Folin method, i, 605.
- Gaschler, A.**, transmutation of uranium into uranium-X, ii, 925.
- Gassner, G.**, "forcing" (plants) by means of hydrogen cyanide, i, 1029.
- Gastaldi, C.** [with *E. Repossi*], α -ketoformhydroxamic acids and their derivatives. X., i, 987.
- Gates, S. F.** See *B. Lambert*.
- Gatewood, E. S.**, substituted biurets, i, 805.
action of alkali on substituted uric acids. II. 9-Phenyl-1:3:7-trimethyluric acid, i, 1188.
action of alkali on substituted uric acids. III. 1:3:7:9-Tetramethyluric acid and 1:3:9-trimethyluric acid, i, 1189.
- Gatti, U.** See *C. Porlezza*.
- Gaubert, P.**, modification of crystal faces owing to their synocrystallisation with foreign matter dissolved in the mother-liquor, ii, 271.
- Gauger, A. W.**, resistance of platinum films in presence of hydrogen, ii, 1040.
thin films of platinum and nickel and catalytic activity, ii, 1072.
- Gaul, R.** See *H. Finger*.
- Gault, H.**, and *F. Alchidjian*, pyrogenic decomposition of hexadecene, i, 110.
- Gault, H.**, and *A. Funke*, alkylidenebenzoylpyruvic esters, i, 37.
- Gault, H.**, and *F. A. Hessel*, pyrogenic dissociation of hexadecane, i, 109.
- Gault, H.**, and *T. Salomon*, α -alkyl-lævulic acids, i, 115.
- Gaumer, M.** See *K. Elbs*.
- Gauzit, J.** See *J. Cabannes*.
- Gavedovskaja, M.** See *N. D. Zelinski*.
- Gavrilov, N. I.**, 3-cyanoindole, i, 578.
- Gavrilov, N. N.**, preparation of colloidal ferric hydroxide solutions by oxidation of ferrous hydrogen carbonate, ii, 860.
- Gavrilov, N. N.** See also *G. Stadnikov*.
- Gay, L.**, thermodynamics of surface actions, ii, 539.
- Gay, L.**, and *N. Perrakis*, properties of physical systems in the neighbourhood of the critical state, ii, 669.
- Gaylor, M. L. V.** See *D. Hanson*.
- Gazzoni, F.**, determination of thorium-X, ii, 441.
- Geake, A.** See *D. A. Clibbens*.
- Gebhardt, H.** See *W. Marckwald*.
- Gedroiz, K. K.**, chemical analysis of soil, i, 489.
- Geel, W. C. van**, intensities of Zeeman components of multiplets, ii, 1016.
- Geel, W. C. van.** See also *L. S. Ornstein*.
- Gehrcke, E.**, recent results in the investigation of fine structure, ii, 1098.
- Gehrcke, E.**, and *E. Lau*, spectrum of hydrogen, ii, 609.
- Gehring, A.**, and *O. Wehrmann*, action of calcium carbonate on the soil, i, 1031.
- Gehrke, M.** See *F. Knoop*.
- Geiger, E.** See *G. Mansfeld*, and *H. Staudinger*.
- Geiger, H.** See *W. Bothe*.
- Geiling, E. M. K.** See *J. J. Abel*.
- Gellinger, H.** See *T. von Fellenberg*.
- Gellmann, W.**, microchemical determination of sulphur. I. Determination of sulphur in easily soluble sulphides, ii, 1000.
- Geiss, W.**, flow of single crystals, ii, 96.
density determinations of rock-salt crystals, ii, 278.
- Geiss, W.**, and *J. A. M. van Liempt*, significance of cold working in the light of electrical measurements. II, ii, 372.
electrical measurements on metals of great purity (tungsten, molybdenum, and nickel), ii, 638.
density-changes of tungsten with working, ii, 762.
- Geissler, F.** See *M. Trautz*.
- Geissler, H.** See *E. Koenigs*.
- Gelbach, R. W.** See *J. N. Pearce*.
- Gelissen, H.**, and *P. H. Hermans*, syntheses by means of organic peroxides. I. Action of benzoyl peroxide and some of its derivatives on boiling benzene, i, 379.
syntheses by means of organic peroxides. II. Action of benzoyl peroxide on toluene, i, 545.
syntheses by means of organic peroxides. III. Action of benzoyl peroxide on benzene in the presence of aluminium and iron chlorides, i, 545.
syntheses by means of organic peroxides. IV. Action of benzoyl peroxide on diphenyl, i, 663.
syntheses by means of organic peroxides. V. Action of benzoyl peroxide on alcohols, i, 663.
syntheses by means of organic peroxides. VI. Action of benzoyl peroxide on acetic acid, i, 664.
analogies between certain reactions of organic peroxides and diazo compounds, i, 813.
- Gelissen, H.** See also *J. Boëseken*.
- Gellhorn, E.** See *E. Abderhalden*.

- Geloso, M.**, formation of colloidal manganese dioxide in the reduction of permanganate by arsenious acid; influence of its adsorptive power on the extent of the reaction, ii, 661.
- Genders, R., and G. L. Bailey**, alpha phase boundary in the copper-zinc system, ii, 297.
- Genevet, R.** See *E. Canals*.
- Genin, A.** See *H. Pringsheim*.
- Gentner, R.** See *D. Holde*.
- Geoffroy, R.** See *C. Courtot*.
- George, E.**, active principles of the African squill, *Urginea burkei* (slang-kop), i, 823.
- George, H.** See *E. Bayle*.
- Georgescu, V.** See *D. Radulescu*.
- Georgian, N.** See (*Mrs.*) *C. Kollo*.
- Gerashimov, A. F. O.**, determination of the mobility of colloid particles by the method of cataphoresis, ii, 204.
- Gerding, H., and A. Karssen**, theories of passivity, ii, 406.
- Gerding, H.** See also *A. Smits*.
- Gerke, R. H.**, electrode potentials, ii, 403.
- Gerlach, H.** See *F. Krauss*.
- Gerlach, W.**, magnetic atom moments and directional quantisation, ii, 258. quantitative spectral analysis, ii, 711.
- Gerlach, W., and W. Schütz**, life periods of excited atoms, ii, 171.
- Germann, A. F. O.**, action of chlorine on mercury, ii, 59. densities of solutions of aluminium chloride in phosgene [carbonyl chloride], ii, 288. carbon monoxide, a product of electrolysis, ii, 568. conductivity of solutions of aluminium chloride in carbonyl chloride at 25°, 0°, and -45°, ii, 1066. general theory of solvent systems, ii, 1143.
- Germann, A. F. O., and G. H. McIntyre**, properties of phosgene [carbonyl chloride] solutions: vapour tension curves of aluminium chloride solution at 0° and 25°, ii, 196.
- Germann, A. F. O., and C. R. Timpany**, preparation of "phosgeno salts," ii, 1085.
- Germann, A. F. O.** See also *H. Schlundt*.
- Germann, F. E. E.** See *R. N. Traxler*.
- Germer, L. H.**, distribution of initial velocities among thermionic electrons, ii, 730.
- Germer, L. H.** See also *C. Davisson*.
- Gerngross, O.**, preparation of *N*-aralkylated iminazolyalkylamines [aminoalkylglyoxalines], i, 440.
- Gersdorff, C. E. F.** See *D. B. Jones*.
- Gerwig, W.** See *M. Trautz*.
- Gessner, H.** See *G. Wiegner*.
- Getman, F. H.**, molecular association of furfuraldehyde, ii, 511. absorption of ultra-violet light by inorganic halides, ii, 837.
- Getz, D.** See *W. M. Thornton, jun.*
- Gex, (Mlle.) M.** See *F. Vlès*.
- Gfeller, H.** See *A. Tschirch*.
- Ghigi, E.** See *G. Plancher*.
- Ghigliotto, C.**, detection of small quantities of formaldehyde in cases of poisoning, ii, 445.
- Ghose, T. P.** See *J. N. Sen*.
- Ghosh, B. N.** See *J. M. Mukherjee*.
- Ghosh, J.** See *S. Mali*.
- Ghosh, J. C., and K. Basu**, bromination of lactic acid and calcium lactate in the presence of light, i, 1234.
- Ghosh, J. C., and J. N. Chakravarty**, dehydrogenation of methyl alcohol and formaldehyde with copper as catalyst; conditions of equilibrium in the system $\text{CH}_2\text{O} \rightleftharpoons \text{CO} + \text{H}_2$, ii, 1161.
- Ghosh, J. C., and J. Mukherjee**, photochemical reaction between bromine and tartaric acid in aqueous solution. I, ii, 1179.
- Ghosh, J. C.** See also *K. M. Chakravarty*.
- Ghosh, R. N.**, specific heat of liquids, ii, 275. electrical conductivity of heated gas, ii, 461. duration of fluorescence of mercury vapour, ii, 1026.
- Ghosh, R. N.** See also *N. K. Sur*.
- Ghosh, S., and N. R. Dhar**, adsorption. IX. Influence of various substances and importance of the adsorption of anions in the coagulation of arsenious and antimonious sulphide sols, ii, 386. adsorption. X. Coagulation of diluted sols by electrolytes, acclimatization, and behaviour towards mixed electrolytes, ii, 511. coagulation of Prussian blue and ferric hydroxide sols, ii, 778.
- Giacomini, F. A.**, molecular heats of gases at low temperatures, ii, 757.
- Gianfranceschi, G.**, theory of the Zeeman effect, ii, 830.
- Gibbs, H. D.** See *W. M. Clark*, and *B. Cohen*.
- Gibbs, R. E.**, X-ray investigation of the lower members of the fatty acid series, ii, 269. variation with temperature of the intensity of reflexion of X-rays from quartz and its bearing on the crystal structure, ii, 367.

- Gibbs, *W. M.*, *H. W. Batchelor*, and *H. P. Magnuson*, effects of alkali salts on bacteriological activities in soil. I. Ammonification. II. Nitrification. III. Ammonification, nitrification, and crop yield, i, 1030.
- Gibson, *C. S.*, and *J. L. Simonsen*, formation of *d*-2:2:4-trimethylcyclohexan-3-one-1-carboxylic acid from *d*-camphorquinone, i, 919.
- Gibson, *C. S.* See also *H. C. Bell*, *H. Burton*, and *W. M. Colles*.
- Gibson, *D. T.*, *C. J. Miller*, and *S. Smiles*, syntheses of disulphoxides, i, 1137.
- Gibson, *G. P.*, nitro derivatives of *o*-cresol, i, 388.
- Gibson, *K. S.*, tests on the accuracy of measurement with the rotatory dispersion colorimetric photometer, ii, 934.
- Gibson, *R. A.*, mechanism of Kolbe's electrosynthesis, ii, 312.
- Gibson, *R. E.*, *R. W. G. Wyckoff*, and *H. E. Merwin*, valerite and μ -calcium carbonate, ii, 1183.
- Gieckhorn, *J.*, and *R. Keller*, selective vital staining, i, 468.
- Giddings, *G. W.* See *G. F. Rouse*.
- Gidon, *M.* See *E. Canals*.
- Giemsas, *G.*, and *K. Bonath*, cinchona alkaloids. VI. Action of sulphuric acid on hydrocinchonine, hydroquinine, hydroquinidine, and quinine; apoquinine, i, 291.
- Gierisch, *W.*, determination of pentosans in wood, i, 1122.
- Giesel, *W.* See *R. Stollé*.
- Gieseler, *H.*, and *W. Grotrian*, completion of the series in the arc spectrum of lead, ii, 1103.
- Gigon, *A.*, effect of continued administration of sugar on the formation of glycogen, i, 192.
- synthesis and degradation of carbohydrates in the organism, i, 463.
- variations in the hydrogen-ion concentration of the blood under different conditions. I. Effect of single administrations of nutrient substances. II. Effect of insulin and other organ extracts, i, 1219.
- Gigon, *A.*, and *W. Brauch*, synthesis and degradation of carbohydrates in the organism. II., i, 611.
- Gilard, *P.* See *A. Lacrenier*.
- Gilbert, *C. S.* See *F. B. Kenrick*.
- Gilbert, *E. C.*, electrometric titration of hydrazine and its salts, ii, 239.
- Gilbert, *H. W.*, and *P. E. Shaw*, electrical charges arising at a liquid-gas interface, ii, 795.
- Gilbert, *L. F.*, system, chromium trioxide-boric acid-water, ii, 869.
- Gilbert, *M.*, and *J. C. Bock*, determination of sugar in small amounts of blood, i, 179.
- Gill, *A. F.* See *W. F. Seyer*.
- Gillespie, *L. J.*, equation for the Haber equilibrium, ii, 294, 532.
- equilibrium pressures of individual gases in mixtures and the mass-action law for gases, ii, 532.
- Gillot, *P.*, extraction of maltose from tubers of *Mercurialis perennis*, L., i, 487.
- characteristics of oils of the *Euphorbiaceae*, i, 760.
- seeds of *Mercurialis*, i, 1224.
- Gilman, *H.*, and *N. J. Beaber*, preparation of hydrocarbons by the reaction between alkyl sulphonates and organo-magnesium halides, i, 802.
- alkylation of mercaptans by means of sulphonic esters, i, 811.
- Gilman, *H.*, *N. J. Beaber*, and *C. H. Myers*, reaction between aryl sulphonates and organo-magnesium halides, i, 1057.
- Gilman, *H.*, and *W. B. King*, reactions of substituted mercapto-magnesium halides, i, 810.
- Gilman, *H.*, and *H. H. Parker*, optimum conditions for the preparation of *n*-valeric acid from magnesium butyl bromide and carbon dioxide, i, 228.
- reaction between magnesium organo-halides and cupric chloride, i, 237.
- Gilman, *H.*, and *R. M. Pickens*, correlation of some aromatic types with physiological action; local anaesthetics containing the furan, thiophen, and pyrrole nuclei, i, 333.
- mechanism of reduction of azobenzene by magnesium organo-halides, i, 1336.
- Gilman, *H.*, and *F. Schulze*, quantitative colour test for the Grignard reagent, ii, 1011.
- Gilman, *H.*, and *J. B. Shumaker*, reaction between disubstituted acetylenic hydrocarbons and the Grignard reagent, i, 493.
- Gilman, *H.*, *L. E. Smith*, and *H. H. Parker*, constitution of disulphoxides, i, 656.
- Gilman, *H.*, and *C. C. Vernon*, 2-chloromethylfuran from 2-furylcarbinol, i, 53.
- Gilmour, *G. van B.*, invert-sugar as a reagent for boric acid determinations, ii, 68.

- Gilta, G.**, crystalline form of organic derivatives of arsenic. II., ii, 93.
- Ginsburg, J. M.**, respiration apparatus for plant and soil studies, i, 1120.
composition and appearance of soybean plants grown in culture solution each lacking a different essential element, i, 1121.
- Giordani, F.**, behaviour of diaphragm electrolyzers with circulation of the alkali chlorides. IV., ii, 550.
behaviour of diaphragm electrolyzers with circulation of the alkali chlorides. V., ii, 551.
chemico-physical investigations on the catholyte of diaphragm electrolyzers with circulation of the sodium chloride, ii, 551.
- Giordani, F.** See also *M. Bakunin*.
- Giorgi, G.**, reduction of picric acid in the liver, kidney, and spleen, i, 733.
- Girard, A.**, and *E. Fourneau*, separation and determination of bismuth, ii, 1207.
- Girard, A.** See also *C. Levaditi*.
- Girard, R.**, action of dilute acid solutions on ferrous metals, ii, 879.
action of sodium chloride on ferrous metals, ii, 1192.
- Girardet, F.** See *P. Lasseur*.
- Giribaldo, D.**, rational notation for the expression of the reaction of solutions, ii, 325.
- Girndt, O.**, choline as the hormone of peristalsis. VIII. Does intestinal choline originate from the suprarenal bodies? IX. Inability of isolated intestinal wall to produce choline, i, 1363.
- Gisiger, F.** See *H. Rupe*.
- Gittleman, I.** See *B. Kramer*.
- Giua, M.** [with *G. Guastalla*], polymerisation of cinnamylideneacetophenone derivatives, i, 1283.
- Giua, M.**, and *E. Monath*, chloro-acetato compounds of quadrivalent titanium, i, 531.
- Giua, M.**, and *R. Petronio*, constitution of benzene and substitution processes in the benzene nucleus, i, 1396.
- Gjaldhaek, J. K.**, solubility of magnesium hydroxide. I. Existence of different modifications of magnesium hydroxide, ii, 652.
solubility of magnesium hydroxide. II. Solubility products and dissociation constants of the magnesium hydroxides, ii, 653.
potential difference between 0.1*N* and 3.5*N* calomel electrodes, ii, 1066.
- Gladstone, R. J.** See *J. W. Pickering*.
- Glaser, A.**, new phenomenon in the diamagnetism of gases, ii, 82.
new property of diamagnetic gases at low pressures, ii, 642.
- Glaser, E.**, and *L. Wittner*, blood-sugar depressant action of plant extracts and oxydases; detection of enzymes in insulin, i, 209.
- Glaser, F.**, psychological effects on the calcium content of blood-serum; [psychophysical reactions], i, 860.
- Glaser, R. W.**, hydrogen-ion concentrations in the blood of insects, i, 853.
- Glasser, O.** See *H. Fricke*.
- Glassett, J. W.** See *S. O. Rawling*.
- Glasstone, S.**, electrolytic polarisation.
I. Cathodic overvoltage of lead, ii, 43.
electrolytic polarisation. II. Cathodic overvoltage of mercury, ii, 133.
overvoltage and surface forces at the lead cathode, ii, 301.
influence of hydrogen-ion concentration on the colorimetric determination of pyrogallol and pyrocatechol derivatives, ii, 331.
effect of small alternating currents on some polarised electrodes, ii, 548.
modified electrometric method for the determination of hydrogen-ion concentration, ii, 822.
electrolytic polarisation. III. The diffusion layer, ii, 979.
- Glattfield, J. W. E.**, and *L. P. Sherman*, "*C₆*-saccharinic acids." III. Preparation of *dl-αβ*-dihydroxyisobutyric acid and some of its derivatives, i, 881.
- Glason, J. M.** See *F. G. Wick*.
- Gleditsch, (Mlle.) E.**, atomic weight of chlorine, ii, 174.
- Gleditsch, (Mlle.) E.**, and *E. Botolfsen*, X-ray spectra of praseodymium, neodymium, and samarium, ii, 612.
- Gleditsch, (Mlle.) E.**, (*Mme.*) *Dorenfeldt*, and *O. W. Berg*, determination of the atomic weight of a mixture of lead isotopes present in cleveite from Aust-Agdar, Norway, ii, 732.
- Gley, E.**, and *J. Cheymol*, presence of iodine in the venous blood of the thyroid, i, 456.
- Gley, E.** See also *R. Arnold*.
- Glocker, G.**, critical potential of methane and its absorption in the ultra-violet, ii, 262.
- Glocker, R.**, deformation- and recrystallisation-structure of metals, ii, 272.
- Glocker, R.**, and *W. Frohmayer*, Röntgen-spectroscopic determination of the proportion by weight of an element in mixtures and compounds, ii, 270.

- Glockler, G.**, double impacts by electrons in helium, ii, 617.
 predicted ionisation-potentials of niton and hydrofluoric acid, ii, 1105.
- Gluschke, A.** See *G. Schroeter*.
- Gnädinger, F.** See *H. Lecher*.
- Goard, A. K.**, and *E. K. Rideal*, surface tension of aqueous phenol solutions, ii, 510.
 surface tension of aqueous phenol solutions. II. Activity and surface tension, ii, 961.
- Godchot, M.**, octahydrophenazine, i, 436.
- Godchot, M.**, and *P. Bedos*, chlorination of 1-methylcyclohexan-4-one, i, 258.
 the two 1:3-dimethylcyclohexan-4-ones and the corresponding dimethylcyclohexanols, i, 537.
- Godden, W.** See *M. B. Richards*.
- Godinho, A. P.**, appearance of red colouring matter (in the urine) after administration of pure chlorophyll. II., i, 460.
- Goebel, F.** See *P. Pfeiffer*.
- Goebel, W. F.**, derivatives of citraconic acid. I. Synthesis of methyltartaric acid and decomposition of dihydroxymaleic acid, i, 1038.
- Gönningen, H.** See *H. Remy*.
- Goens, E.** See *E. Grüneisen*.
- Göring, E.** See *G. Heller*.
- Goetz, A.**, thermoelectric behaviour of pure iron at its transition points, ii, 187.
 glow electronic emission at transition and melting points, ii, 459.
 connexion between thermo-electric power and space lattice for pure iron, ii, 485.
- Götz, F.** See *F. Henrich*.
- Götzky, S.** See *G. Schroeter*.
- Goez, W.** See *W. Fraenkel*.
- Goffon, R.**, determination of the total organic acids of urine; their relationship to nitrogen nutrition and to ketonuria, i, 459.
- Gokhale, A. G.**, mahua flowers as raw material for the acetone fermentation process, i, 1216.
- Goldberg, W.** See *A. Henwood*.
- Goldberger, A. von.** See *G. Bredig*.
- Goldberger, J.**, and *W. F. Tanner*, pellagra-preventive action of dried beans, caseinogen, dried milk, and brewer's yeast, i, 1517.
- Goldblatt, M. W.**, determination of acetoacetic acid and β -hydroxybutyric acid in urine, i, 1204.
- Goldschmidt, H.**, and *H. Aarflot*, conductivity of acids of medium strength in methyl alcohol, and their catalytic action, ii, 976.
- Goldschmidt, H.**, and *P. Dahll*, conductivity and catalytic action of the three strong halogen acids in methyl and ethyl alcohol, ii, 128.
- Goldschmidt, H.**, *S. Johnsen*, and *E. Overwien*, diazoamino conversion, ii, 138.
- Goldschmidt, S.**, and *F. Christmann*, constitution of nitroso compounds, i, 649.
- Goldschmidt, S.**, *R. Endres*, and *R. Dirsch*, reactions of ethyl hypochlorite with organic substances, i, 502.
- Goldschmidt, S.**, and *H. Schüssler*, action of chlorine monoxide on organic compounds, i, 497.
- Goldschmidt, S.**, and *C. Steigerwald*, degradation of proteins by hypobromite, i, 1109.
- Goldschmidt, S.**, *A. Vogt*, and *M. A. Bredig*, univalent oxygen. IV., i, 1434.
- Goldsworthy, L. J.**, resolution of *trans*-cyclobutane-1:2-dicarboxylic acid, i, 33.
- Gollwitzer-Meier, K.**, dependence of the excitability of the respiratory centre on a definite ionic equilibrium in the blood, i, 177.
 chemical regulation of respiration in blood of alkaline reaction, i, 177.
 connexion between the reaction and the total ionic equilibrium of the blood, i, 1482.
- Gollwitzer-Meier, K.**, and *C. Kroetz*, chemistry of the blood during sleep, i, 322.
- Golse, J.**, micro-determination of urea and ammonium salts, i, 609.
- Gomberg, M.**, and *L. C. Anderson*, 3:3':3''-trimethylaurin (*o*-cresaurin) and 3:3':3''-trimethyl-*N*:*N'*:*N''*-triphenylpararosaniline (triphenylros-*o*-toluidine), i, 1064.
- Gomberg, M.**, and *G. C. Forrester*, triphenylmethyl. XXXIV. 2:5-, 2:4-, and 3:4-Dimethoxytriphenylmethylys, i, 1266.
- Gomberg, M.**, and *W. J. McGill*, tautomerism of *o*-hydroxytriarylcarbinols which contain naphthyl groups, i, 1269.
- Gomberg, M.**, and *H. R. Snow*, condensation of carbon tetrachloride and phenol: aurin, i, 660.
- Gombos, H.**, lack of correspondence between spectroscopic and spectrophotometric absorption maxima, ii, 178.
 possibility of determining spectrophotometrically substances oxidisable by permanganate, ii, 237.
- Gonell, H. W.** See *R. O. Herzog*.

- González, A.**, isomerism of the crotonic acids, i, 629.
- González, F.** See *O. Hönigschmid*.
- Goode, K. G.**, continuous reading hydrogen-ion meter, ii, 1196.
- Goodson, J. A.**, and **T. A. Henry**, echitamine, i, 1166.
- Goodwin, G. M.**, and **H. J. Shelley**, sugar content of the cerebro-spinal fluid and its relation to the blood-sugar, i, 853.
- Goodwin, R. C.**, and **J. R. Bailey**, 2-phenylsemicarbazide, i, 318.
reduction of phenylhydrazones, i, 843.
- Gorbatshev, A.**, derivation of adsorption isotherms, ii, 959.
- Gordon, A. R.**, polarisation and concentration changes at the cathode during electrolysis of copper salts, ii, 549.
- Gordon, H. B.**, monochromatic illuminator for gas flames, ii, 588.
- Gordon, J.** See **J. W. McLeod**, and **H. R. Whitehead**.
- Gordon, N. E.** See **R. E. Marker**.
- Gordonov, T.**, pharmacology of proteinogenous cholines, i, 1502.
- Gore, H. C.**, effect of hydrogen-ion concentration on the determination of diastatic power by the polarimetric method, i, 325.
- Gore, S. N.**, detection and determination of indican in urine by the cotton-wool plug test, i, 186.
- Gorgas, A.** See **D. Holde**.
- Gori, G.**, determination of camphor in plants and industrial and pharmaceutical products, ii, 1009.
- Goris, A.**, and **M. Métin**, presence of two alkaloids in *Aconitum anthora*, L., i, 761.
chemical composition of the hybrid of *Aconitum anthora*, L., and *A. napellus*, i, 762.
- Gorodissky, H.**, micro-methods for the quantitative determination of brain lipins, i, 1487.
- Gorr, G.** See **C. Neuberg**.
- Gorter, K.**, chemical composition of the latex of *Hevea*, i, 622.
- Gortner, R. A.**, mechanism of the tyrosine-tyrosinase reaction, i, 474.
- Gortner, R. A.**, and **W. F. Hoffman**, determination of chlorides and sulphates in expressed plant-tissue fluids, i, 485.
evidence of a new amino-acid in proteins, i, 602.
- Gortner, R. A.**, and **W. M. Sandstrom**, proline and tryptophan as factors influencing the accuracy of Van Slyke's method for the determination of nitrogen distribution in proteins, ii, 908.
- Gortner, R. A.** See also **W. F. Hoffman**.
- Gosman, B. A.**, dropping mercury cathode. XI. Influence of anions, ii, 678.
- Goss, F. R.**, **C. K. Ingold**, and **J. F. Thorpe**, glutaconic acids. XVIII. Three-carbon tautomerism in the cyclopropane series. IV., i, 549.
- Gossner, B.**, chemical constitution of the gehlenite-melilitite group, ii, 821.
- Goswami, M. N.**, direct hydrogenation and dehydrogenation of acenaphthene, i, 127.
- Goth, E.** See **W. Hückel**.
- Gottfried, C.** See **Ernst Müller**.
- Gottlieb, E.**, propepsin in blood and urine, i, 742.
- Gottschalk, A.**, acetaldehyde in intermediary cell metabolism, i, 191.
hormonal regulation of intermediate carbohydrate metabolism. I. Importance of adrenaline and insulin in the utilisation of dextrose by warm-blooded animals, i, 481.
hormonal regulation of intermediate carbohydrate metabolism. II. Insulin-adrenaline antagonism in the frog, i, 1513.
- Gottschalk, A.**, and **C. Neuberg**, esterification of phosphoric acid by yeast, i, 337.
- Gottschalk, A.** See also **C. Neuberg**.
- Goudsmit, S.**, ground term of the neon spectrum, ii, 450.
determination of the terms in the lanthanum spectrum, ii, 454.
allocation of terms to some multiplets in the iron spectrum, ii, 611.
complex structure of spectra, ii, 725.
- Goudsmit, S.**, and **R. de L. Kronig**, intensities of the Zeeman components, ii, 917.
- Goudsmit, S.**, **J. van der Mark**, and **P. Zeeman**, magnetic resolution of the scandium spectrum. I., ii, 912.
- Graaff, W. C. de**, and **A. J. Le Fèvre**, bacterial fermentation, particularly in the *coli-typhosus* group, i, 478.
- Grabbe, H.** See **K. Ziegler**.
- Grabner, M. E.**, optical constants of magnesium and zinc crystals, ii, 1041.
- Grabfield, G. P.**, and **A. M. Prentiss**, effect of iodides on the human nitrogen metabolism, i, 1002.
- Grabowska, M.**, and **S. Weil**, condensation of formaldehyde with *p*-aminoacetophenone, i, 260.
- Gracanin, M.** See **A. Nemet**.
- Gränacher, C.**, anhydrides of amino-acid derivatives, i, 594.
- Gränacher, C.** See also **P. Karrer**.

- Graevenitz, F. von**, fatty degeneration caused by some essential oils, i, 195.
 pharmacological investigation of methylated guanidines, i, 734.
- Graevenitz, F. von**. See also **M. Schenck**.
- Graf, F.** See **H. Lecher**.
- Grafe, V.**, plant phosphatides, i, 1522.
- Grafe, V.**, and **V. Horvat**, water-soluble phosphatides from the root of the sugar beet. I., i, 1522.
- Graffin, M. W.** See **M. S. Kharasch**.
- Grafton, E. H.** See **W. D. Harkins**.
- Graham, S.** See **G. H. Anderson**.
- Graham, V. A.** See **J. B. Sumner**.
- Graire, A.**, reduction of oxides of nitrogen in presence of sulphuric and sulphurous acids, ii, 227.
- Grandadam, R.**, purification and m. p. of potassium and sodium cyanides, ii, 704.
- Grandadam, R.** See also **L. Hackspill**.
- Grandsire, A.** See **H. Colin**.
- Grant, J.**, concentration cells in methyl alcohol. II. Solutions containing tetraethylammonium iodide, ii, 301.
- Grant, R.** See **A. R. Penfold**.
- Grassner, F.** See **W. Küster**.
- Grau, E.** See **R. Lorenz**.
- Grau, R.** See **K. Hess**, and **H. Ley**.
- Gray, G. W.**, and **G. D. Garbutt**, determination of phosphorus in the presence of vanadium, ii, 600.
- Gray, J. A.**, effective wave-lengths of γ -rays, ii, 84.
 scattering and absorption of γ -rays, ii, 84.
- Gray, L. T. M.**, effect of colloids in the displacement of lead and copper from their salts by zinc, ii, 578.
- Gray, W. H.**, aromatic esters of acyl-ecgonines, i, 829.
- Gray, W. H.** See also **Wellcome Foundation, Ltd.**
- Graymore, J.**, solvent action of trialkyl-trimethylenetriamines on uric acid, i, 76.
- Graz, C.** See **L. Duparc**.
- Greasley, T.** See **F. S. Kipping**.
- Greaves, J. E.**, and **D. H. Nelson**, iron, sulphur, and chlorine contents of grains and the influence of irrigation water on them, i, 757.
- Greaves, R. H.**, and **J. A. Jones**, temper-brittleness of steels; susceptibility to temper-brittleness in relation of chemical composition, ii, 487.
- Grebe, L.**, variation of the energy absorbed by ionisation in air when excited by X-rays of varying wave-length, ii, 615.
- Grebe, L.**, and **L. Kriegesmann**, energy consumption in ionisation by X-rays of different wave-lengths, ii, 79.
- Grebenshchikov, J. V.** See **N. A. Pushin**.
- Green, G.**, law of force within the atom, ii, 466.
- Green, G.** See also **E. B. R. Prideaux**.
- Green, J. B.**, structure of the red lithium line 6708 Å., ii, 1013.
- Green, J. B.**, and **M. Petersen**, double excitation spectra of magnesium and related elements, ii, 451.
- Greenberg, D. M.**, and **C. L. A. Schmidt**, formation and ionisation of compounds of casein with alkali. I. Transport numbers of alkali caseinate solutions. II. Conductivities of alkali caseinate solutions. III. Electrochemical behaviour of racemic casein, ii, 129.
- Greenewalt, C. H.**, partial pressure of water out of aqueous solutions of sulphuric acid, ii, 493.
- Greenwald, I.**, new type of phosphoric acid compound from blood; effect of substitution on the rotation of β -glyceric acid, i, 712.
 Jaffe's reaction for creatinine. II. Effect of substitution in the creatinine molecule and a possible formula for the red tautomeride, i, 839.
 Jaffe's reaction for creatinine. III. 2:6-dinitrophenol, ii, 1212.
- Greenwald, I., J. Gross**, and **J. Samet**, nature of sugar in normal urine. I. Comparison of dextrose equivalent of various sugars in different methods for determination of dextrose, i, 185.
 nature of sugar in normal urine. II. Sugar excretion on various diets; influence of diet on dextrose tolerance; nature of action of insulin, i, 185.
- Greenwood, C. V.** See **H. B. Stocks**.
- Greenwood, G.**, crystal structure of cuprite and rutile, ii, 93.
 crystallographic data for some organic compounds, ii, 1037.
- Greer, W. N.** See **C. A. Kraus**.
- Greider, C. E.** See **J. C. W. Frazer**, and **W. A. Patrick**.
- Greig, J. W.**, formation of mullite from cyanite, andalusite, and sillimanite, ii, 987.
- Greig, J. W.** See also **N. L. Bowen**.
- Grenacher, M.**, variation of dielectric constants of organic liquids with pressure, ii, 741.
- Grenet, L.**, iron-nickel and iron-cobalt equilibrium diagrams, ii, 973.

- Grevemeyer, *C. F.* See *G. Tammann*.
- Griebel, *C.*, occurrence of acetaldehyde in fruits and other parts of plants, i, 763.
- Grieverson, *C. J. W.*, absorption of ultra-violet light in dilute solutions, ii, 472.
- Griffith, *E.* See *F. N. Peters, jun.*
- Griffith, *H. D.*, construction of Nernst filaments, ii, 896.
- Griffith, *R. H.*, substituted carbonates derived from *p*-cresol, i, 135.
- Griffith, *R. H.*, and *E. Hope*, synthesis of 5:5'-dibromo-6:6'-dimethoxy-2:2'-bisoxxythionaphthen, i, 827.
- Griffith, *R. O.*, and *A. McKeown*, photochemical and thermal decomposition of ozone, ii, 1080, 1168.
- Griffith, *W. H.*, influence of diet on synthesis of hippuric acid, i, 1002.
- Griffiths, *J. P.*, and *C. K. Ingold*, tautomerism of dyads. IV. Evidence of the tautomeric mobility of oximes, i, 1190.
- Griffiths, *W. T.* See *J. L. Haughton*.
- Grigaut, *A.*, determination of lecithin in blood, i, 453.
- Grignard, *V.*, and *M. Dubien*, action of organo-magnesium compounds on $\Delta\gamma$ -hepten- β -one and on its olefinic alcohol, i, 111.
- Grignard, *V.*, and *R. Escourrou*, synthetic rhodinol, i, 772.
selective hydrogenation of geraniol, i, 772.
catalytic hydrogenation of nitriles under reduced pressure; synthesis of aldimines, i, 931.
- Grignard, *V.*, and *A. Vesterman*, γ -hydroxy- β -ethylhexaldehyde and β -ethyl- $\Delta\beta$ -hexenaldehyde, i, 513.
- Grilli, *V.* See *G. Sani*.
- Grimm, *H. G.*, structure and molecular dimensions of non-metallic hydrides, ii, 1123.
- Grimm, *H. G.* See also *W. Biltz*.
- Grindley, *G. C.*, and *A. M. Tyndall*, mobility in air of ions produced in another gas, ii, 80.
- Grischkevitch-Trochimovski, *E.*, action of nitrous acid on the nitrile of aminomalonic acid, i, 1104.
- Grischkevitch-Trochimovski, *E.*, and *L. Kotko*, structure of dicyanotriazole, i, 1104.
- Grischkevitch-Trochimovski, *E.*, and *A. Semencov*, condensation of aldehydes with aminomalononitrile, i, 1069.
- Groc, (*Mlle.*) *M.* See *Javillier*.
- Groebels, *F.*, and *F. Sperfeld*, vitamins. IV. Influence of avitaminosis on gastric digestion of white mice, i, 1514.
- Groebe, *W.* See *K. Brand*.
- Gröth, *J.*, cause of the colour change in cobalt chloride solutions, ii, 963.
- Gröth, *J.*, and *I. Kelp*, diffusion of iodine in pure and mixed solvents, ii, 1049.
- Grollman, *A.*, combination of phenol-red and proteins, i, 1000.
- Grollman, *A.*, and *J. C. W. Frazer*, vapour-pressure lowering of aqueous sulphuric acid solutions at 25°, ii, 398.
- Grollman, *A.* See also *D. I. Macht*.
- Gromelski, *A.*, influence of the method of obtaining serum on its protein concentration, i, 95.
- Groot, *W. de*, measurements on small tungsten arcs, ii, 1137.
- Gross, *E.*, and *A. Terenin*, fine structure of optically excited spectrum lines, ii, 915.
- Gross, *F.*, selective photo-electric effect on metallic films prepared in various ways, ii, 344.
constitution of magnetic iron, ii, 1134.
- Gross, *J.* See *I. Greenwald*.
- Gross, *L.* See *P. Eggleton*.
- Gross, *P.*, and *O. Halpern*, dilution laws and distribution coefficients of strong electrolytes from the Debye theory, ii, 117.
mixed electrodes of the second type, ii, 405.
parameters depending on temperature in statistics: the Debye theory of electrolytes, ii, 866.
electrolytes in solutions of low dielectric constant, ii, 1152.
- Grosse, *A. von*, relationships between hydrogen and alkyl compounds of non-metals, ii, 843.
- Grosse, *A. von*. See also *E. Krause*.
- Grottrian, *W.* See *H. Gieseler*.
- Grube, *G.*, hydrogen overvoltage at arsenic cathodes, ii, 43.
- Grube, *G.*, and *L. Baumeister*, influence of light and X-rays on anodically polarised platinum electrodes, ii, 46.
- Grube, *G.*, and *M. Staesche*, determination of equilibria between stages of oxidation by potential measurements. II. Manganese in phosphoric acid solution, ii, 893.
- Gruber-Rehenburg, *R.* See *R. Kremann*.
- Grün, *A.*, and *F. Wittka*, oxidation of unsaturated fatty acids, i, 1377.
- Grün, *S.* See *M. Kohn*.
- Grünbaum, *A.* See *J. Snapper*.
- Grüneisen, *E.*, and *E. Goens*, metal crystals. I. and II., ii, 22.
metal crystals. III. Thermal expansion of zinc and cadmium, ii, 488.

- Grüss, *J.*, mechanism of action of hydrogenase in the cell, i, 738.
- Grützmacher, *M.*, dielectric constants of liquid mixtures, ii, 263.
- Grütznér, *M.* See *A. Lottermoser*.
- Gruhn, *E.*, excretion of the stereoisomeric cocaine in the urine and their relation to toxicity, i, 736.
- Grumbach, *A.*, surface phenomena in photo-electric elements with a fluorescent liquid, ii, 549.
- Grundherr, *G. E. von.* See *R. Kuhn*.
- Grundmann, *W.*, preparation of well-defined silica acid sols, ii, 775.
- Grunert, *H.*, internal friction of aqueous sulphate solutions, ii, 859.
- Grunmach, *L.*, and *G. Schweikert*, surface tension of "tetralin," "decalin," and lubricating oil, ii, 31.
- Gruskin, *B.*, determination of urea and sugar in blood, i, 1113.
- Guastalla, *G.* See *M. Giusa*.
- Guckel, *M.* See *H. Kohn*.
- Gucker, *F. T.* See *T. W. Richards*.
- Gudden, *B.*, and *R. Pohl*, photo-electric primary current in sodium chloride crystals, ii, 343.
mechanism of the photo-electric primary current in crystals, ii, 344.
electron conduction in crystals, ii, 943.
- Günther, *F.* See *R. Meyer-Bisch*.
- Günther, *P.*, viscosities of gases [hydrogen and helium] at low temperatures, ii, 100.
- Günther, *P.*, and *G. Wilcke*, Röntgen spectroscopic method of quantitative analysis, ii, 237.
- Günther-Schulze, *A.*, cathode fall, current density, and dark space in mixtures of gases which do not react chemically, ii, 341.
processes in the vacuum mercury arc, ii, 341.
pseudo-high vacuum, ii, 342.
work of escape of positive ions, ii, 342.
relation between energy of escape of electrons and electrochemical normal potential, ii, 477, 546.
electrolysis with gas cathodes, ii, 549.
chemical reactions in the glow discharge, ii, 553.
- Günzel, *E.*, and *E. Marcus*, lead bromate and diacetato-diplumbobromate, ii, 1086.
- Guernsey, *E. W.*, and *M. S. Sherman*, mechanism of the fixation of nitrogen as sodium cyanide, ii, 889.
- Guertler, *W.*, and *T. Liepus*, chemical resistance of metals and alloys, especially those containing molybdenum, ii, 1146.
- Guéry, *F.*, magnetic field of a moving electron, ii, 252.
- Guest, *H. H.*, preparation of primary acetylenic alcohols, i, 627.
- Guggenbühl, *G. A.* See *H. Rupe*.
- Guha, *P. C.*, and *S. C. De*, hetero-ring formations with thiocarbonylhydrazide, i, 599.
- Guha, *P. C.*, and *H. P. Rây*, constitution of the so-called dithiourazole of Martin Freund. III. Synthesis of some monosubstituted thiodiazoles, i, 702.
- Guha, *P. C.*, and *S. K. Ray*, *o*-aminophenylhydrazine and some interesting heterocyclic compounds derived from it, i, 1461.
- Guichard, *F.* See *E. André*.
- Guichard, *M.*, dynamic study of dehydration by means of a hydrostatically-compensated balance, ii, 427.
rate of dehydration in the system, water-alumina, ii, 558.
rapidity of dehydration at increasing temperature, ii, 559.
- Guillaumin, *A. J. A.* See *L. J. Simon*.
- Guinot, *H.*, method and laboratory apparatus for dehydrating alcohol, i, 1229.
- Guittonneau, *G.*, ammonification of amino-nitrogen by the *Microsiphonæ* of the soil, i, 106.
utilisation of mineral nitrogen by the *Microsiphonæ* of the soil, i, 341.
formation of thiosulphates at the expense of sulphur by micro-organisms of the soil, i, 766.
conversion of sulphur into sulphate by micro-organisms of the soil, i, 1218.
- Gulevitch, *W.* [mechanism of the catalytic reduction of oximes], i, 653.
- Gulland, *J. M.*, and *R. Robinson*, synthetic experiments in the naphthyridine groups, i, 1186.
- Gunnaiya, *D.* See *A. L. Narayan*.
- Gunnelius, *A.* See *E. Oman*.
- Guntz, *A.*, and *F. Benoit*, analysis of lithium minerals, ii, 1202.
- Gupta, *B. K. S.* See *A. C. Sircar*.
- Gupta, *I. S.* See *G. C. Chakravarti*.
- Gupta, *P. N. D.* See *P. R. Rây*.
- Gupta, *R. S.* See *M. Prasad*, and *D. L. Shrivastava*.
- Gupta, *S. R. D.* See *E. Stiasny*.
- Gurchot, *C.* See *W. D. Bancroft*.
- Gurevitch, *W. G.* See *W. F. Timofeev*.

- Gurney, R. W.**, ionisation by α -particles in monatomic and diatomic gases, ii, 256.
stopping-power of gases for α -particles of different velocities, ii, 256.
- Gurvitsch, L.**, colloidal properties of soap solutions, ii, 517.
- Guss, A. B.** See **L. A. Congdon**.
- Gustafson, F. G.**, hydrogen-ion concentration of plant juices. I. Changes in the hydrogen-ion concentration of plants during their development, i, 1023.
diurnal changes in acidity of *Bryophyllum calycinum*, i, 1221.
- Gustavson, K. H.**, effect of sodium chloride on hydrogen-ion concentration and stability towards alkali of chromic chlorides, ii, 1086.
- Gutbier, A.**, dialysis of easily decomposable colloidal systems, ii, 965.
- Gutbier, A.**, and **H. Brintzinger** [with **W. Bubam**], composition of the ash evolved from the volcano Acatenango in Guatemala on June 12th, 1925, ii, 1195.
- Gutbier, A.**, and **T. Kautter**, colloidal bismuth, ii, 860.
- Gutbier, A.**, and **H. O. Meyer**, colloidal lead dioxide from lead tetra-acetate, ii, 290.
- Gutbier, A.**, and **W. Niemann**, isomeric potassium pentachlororuthenites, ii, 231.
- Guth, B.**, higher fungi. XVIII. The muscarine question, i, 1247.
- Gutmann, A.**, action of normal sodium arsenite on azido compounds, i, 84.
sodium arsenite as a reagent for loosely-combined halogen, ii, 238.
sodium arsenite as a reagent for loosely-combined reactive oxygen, sulphur, and nitrogen, i, 1059.
- Guttmann, L. W.** See **M. Kohn**.
- Guy, W. G.** See **W. D. Harkins**.
- Guye, C. E.**, **P. Mercier**, and **J. J. Weiglé**, explosion potential in carbon dioxide at high pressures, ii, 490.
- Guyot, J.**, Volta effect between metals and electrolytes, ii, 402.
- Gyemant, A.**, measurement of fluorescence of solids, ii, 13.
mechanism of breakdown of damp liquid insulators, ii, 1028.
- György, P.**, problem of permeability, i, 322.
calcium ionisation in the blood, i, 324.
effect of neutral salts on the excretion of acids in the urine, i, 459.
- György, P.** See also **T. Brehme**, and **R. Essinger**.
- Gyulai, Z.**, quantum equivalent for photo-electric conductivity in sodium chloride crystals, ii, 476.
absorption process in photo-electrically-conducting sodium chloride crystals, ii, 837.

H.

- Haag, W.** See **Erich Schmidt**.
- Haar, A. W. van der**, saponins and related substances. XI, XII, and XIII, i, 50.
saponins and related substances. XIV. Structure of hederagenin: an example of steric hindrance, i, 946.
- Haas, G.**, and **E. F. Schlesinger**, determination of free phenol and cresol in small amounts of blood and its prognostic significance in cases of poisoning, i, 334.
- Haas, P.**, and **T. G. Hill**, *Mercurialis*. I. Development of a blue pigment on drying, i, 759.
Mercurialis. II. Occurrence of a chromogen showing a remarkable avidity for free oxygen, i, 759.
- Haas, R.** See **W. Küster**.
- Haase, W.** See **E. H. Riesenfeld**.
- Haber, F.**, practical results of the theoretical development of chemistry, ii, 395.
- Haber, F.**, and **J. Jaenicke**, Rhine water, ii, 997.
- Hackl, O.**, certain and exact establishment of the end-point in the titration of manganese, ii, 440.
direct determination of tervalent iron in silicates insoluble in acids; use of the method in determining the ratio of ferric to ferrous iron after decomposition of the mineral with sulphuric and hydrofluoric acids, ii, 1004.
- Hackmann, C.** See **F. Kieferle**.
- Hackspill, L.**, and **R. Grandadam**, displacement of alkali metals by iron, ii, 233.
reduction of metallic oxides by alkali cyanides, ii, 419.
- Haden, R. L.**, modification of the Kramer-Tisdall method for the determination of sodium in blood, i, 1112.
preparation of colloidal gold solution by the Mellanby-Anwyl-Davies technique, ii, 895.
- Haden, R. L.**, and **T. G. Orr**, chemical constituents of the blood of the dog, i, 1484.
- Hadley, A. C.** See **M. Nierenstein**.
- Haebler, W. T.** See **P. Karrer**.

- Häffner, H.** See *B. Emmert*.
- Hägglund, E.**, unsaturated aldehydes and their relation to α -lignin, i, 643. homogeneity of α -lignin, i, 1026.
- Hägglund, E.**, and *A. M. Augustson*, relation between alcoholic fermentation and hydrogen-ion concentration. I., i, 476.
- Haehn, H.**, and *A. Pütz*, new oxidation-reduction system and its biochemical significance, i, 858.
- Haemmerli, A.** See *E. Herzfeld*.
- Händel, M.**, detoxicating function of the liver. I. Coupling of sulphuric acid and of glycuronic acid in liver diseases, i, 610.
- Händel, M.** See also *A. Benatt*, and *J. A. Collazo*.
- Haenny, E.** See *F. Kehrmann*.
- Haerdi, W.**, and *J. F. Thorpe*, conditions underlying the formation of unsaturated and cyclic compounds from halogenated open-chain derivatives. VII. Influence of the phenyl group on the formation of the cyclopropene ring, i, 923.
- Haeseler, P. K.**, preparation of diacetoneamine, i, 644.
- Häusler, H.**, and *O. Loewi*, insulin and the distribution of sugar between fluid and non-fluid systems, i, 753.
- Haffner, F.**, and *T. Komiyama*, pharmacological assay of preparations of thyroid gland, i, 1119.
- Hafner, E. A.**, and *L. Kürthy*, salting-out, ii, 283.
- Hagedorn, H. C.**, apparatus for the graphic recording of oxygen consumption and carbon dioxide output, especially adapted for clinical work, i, 177.
- Hagem, O.** See *T. Gaarder*.
- Hagene, P.** See *R. Fosse*.
- Hager, E.** See *E. Philippi*.
- Hager, G.**, determination of the acidity of mineral soils, i, 489.
- Haggard, H. W.**, toxicology of hydrogen sulphide, i, 1357.
- Hahn, A.**, and *H. Fasold*, salt-formation between creatine and sodium hydroxide, ii, 653. reciprocal conversion of creatine and creatinine, i, 1496.
- Hahn, D. A.**, and *A. G. Renfrew*, synthesis of the polypeptide-benzoylhydantoin: 1-methyl-4-*p*-hydroxybenzylhydantoin-3-acetic acid, i, 581.
- Hahn, F. L.**, conversion of cupric into cuprous sulphide by heating in a current of hydrogen, ii, 160. determination of magnesium in presence of aluminium, ii, 601.
- Hahn, F. L.**, detection of minute quantities of material at very great dilution, i, 1095.
- Hahn, F. L.**, and *G. Jaeger*, sensitive reaction for nitrate, ii, 1199. contradictions and errors in analytical chemistry. VI. Ferrous sulphate test for nitrate and nitrite and the diphenylamine reaction, ii, 1199.
- Hahn, F. L.**, and *S. Scheiderer*, contradictions and errors in analytical chemistry. V. Precipitation of magnesium ammonium phosphate from solutions containing aluminium, ii, 69.
- Hahn, F. L.**, and *H. Wolf*, stable triammine salts, i, 813. separation of arsenic and antimony by distillation, ii, 68. complexes with two unsymmetrical co-ordination valencies, ii, 578.
- Hahn, F. V. von**, electrosynthesis of sulphide hydrosols, ii, 522. colloid chemistry of the vitamin problem, ii, 664.
- Hahn, O.**, capacity for emanating of finely-divided precipitates as a means of determining surface variation, ii, 177. isotopes of uranium, ii, 921.
- Hahn, O.**, and *L. Meitner*, β -ray spectrum of radium, ii, 9.
- Haines, L. B.**, and *H. Adkins*, reaction of certain organic compounds with nitrogen pentoxide, i, 801.
- Haines, T. M.** See *(Sir) W. J. Pope*.
- Haines, W. B.**, physical properties of soils. I. Mechanical properties concerned in cultivation, i, 876.
- Haken, W.** See *F. Paneth*.
- Halban, H. von**, nature of the undissociated acids, ii, 511. absorption of light by solutions of electrolytes, ii, 1083.
- Haldane, J.** See *J. B. Shoesmith*.
- Haldane, J. B. S.**, production of acidosis by ingestion of magnesium chloride and strontium chloride, i, 723.
- Haldane, J. B. S.** See also *G. E. Briggs*.
- Hale, C.** See *D. T. Englis*.
- Hall, A. L.** See *G. A. Molengraaff*.
- Hall, E. H.**, number of free electrons with a metal, ii, 252. the four transverse effects and their relations in certain metals, ii, 846.
- Hall, J. A.**, glucosides of the navel orange, i, 760.
- Hall, J. A.**, and *C. P. Wilson*, volatile constituents of Valencia orange juice, i, 1521.

- Hall, R. E.** See *W. H. Rinkenbach*.
- Hall, R. I. E.**, action of sodium on the acetates of *o*- and *p*-cresol, i, 23.
- Hall, W. J.** See *S. A. Shorter*.
- Haller, A., C. Bauer, and P. Ramart**, syntheses with sodamide. XIII. Mono-, di-, and tri-allylacetophenones, alkylallylacetophenones, and allyliso-butyrones, i, 1260.
- Haller, A., and R. Cornubert**, constitution of the dimethylcyclopentanone and dimethylcyclohexanone obtained by methylation in presence of sodamide, i, 1070, 1071.
- Haller, A., and F. S. Legagneur**, diketones and mixed ketones derived from the α -mononitrile of camphoric acid and from methyl cyanocampholate, i, 683.
action of magnesium methyl iodide on esters of camphoric acid α -mononitrile, i, 924.
- Haller, A., and R. Lucas**, rotatory power of certain camphor derivatives, ii, 742.
- Haller, H. L.** See *J. A. Ambler, and P. A. Levene*.
- Haller, R.**, adsorption compounds. V., ii, 287.
- Hallett, L. T.** See *E. H. Archibald*.
- Hallimond, A. F.**, chemical classification of the mica group. I. Acid micas, ii, 819.
- Halpern, O.** See *P. Gross*.
- Ham, L. B.**, relation of spectral lines to mass variations within the atom, ii, 734.
theory of the fine structure of H and He+ lines, ii, 1098.
- Hamann, F.** See *O. Reisser*.
- Hamburger, R. J., and A. von Szent-Györgyi**, influence of oxygen tension on biological oxidation, i, 709.
- Hamer, (Miss) F. M.**, reduction of the carbocyanines, i, 305.
- Hamer, R.**, photoelectric thresholds of elements, ii, 7.
- Hamilton, B.**, concentrations of inorganic substances in blood-serum and spinal fluid, i, 1352.
- Hamilton, C. S., and R. T. Major**, symmetrical bisarsinoarylamidocarbamides, i, 996.
- Hamilton, C. S., and C. Sly**, action of alkyl chloroformates on aminoaryl-arsinic acids, i, 600.
- Hamlin, M. L.**, laboratory vacuum gauge, ii, 431.
- Hammarsten, E.**, osmotic pressure of electrolytes of high molecular weight, ii, 195.
- Hammer, W., and H. Pychlan**, behaviour of the α -particles from radium-F in a longitudinal electric field, ii, 621.
- Hammett, F. S.**, bone growth. I. Changes in ash, organic matter, and water during growth in the albino rat, i, 1001.
bone growth. II. Changes in calcium, magnesium, and phosphorus of bone during growth. III. Changes in composition of ash, i, 1298.
refractometric studies of neutralisation, ii, 289.
- Hammett, L. P., and C. T. Sottery**, reagent for aluminium, ii, 601.
- Hammett, L. P.** See also *H. T. Beans*.
- Hammick, D. L., and J. A. Currie**, system, sodium sulphite-sodium hydroxide-water, ii, 869.
- Hammond, J.** See *H. E. Woodman*.
- Hamsik, A.**, oxyhæmin and its salts, i, 845.
hydroxyhæmin, i, 1476.
- Hance, F. E.**, inhibition of bumping in the determination of nitrogen in soil, i, 1032.
- Hance, F. E.** See also *L. M. Dennis*.
- Hancock, J. S.** See *A. F. Joseph*.
- Handovsky, H.**, colloidal composition of blood-serum; significance of cholesterol, i, 322.
structure of blood-serum, i, 715.
water metabolism and pharmacological action, ii, 36.
- Handy, J. A., and L. F. Hoyt**, [determination of] ethyl phthalate. III., ii, 1210.
- Hanemann, H.**, recrystallisation phenomena as functions of the crystal growth after hot deformation, ii, 1134.
- Hanke, G.** See *G.-M. Schwab*.
- Hanle, W.**, influence of magnetic fields on the polarisation of resonance fluorescence, ii, 629.
- Hann, R. M.**, condensation of rhodanic acids with isatin; 3-aryl-rhodanilidene- $\Delta^{5,3'}$ -oxindoles, i, 987.
condensation of isomeric tolyl-2-thio-4-ketothiazolidines (rhodanic acids) with substituted vanillins, i, 1105.
- Hann, R. M., and J. F. T. Berliner**, toluidine derivatives. I. Quantitative preparation of 5-iodo-*o*-toluidine and some of its derivatives, i, 908.
- Hann, R. M., and G. C. Spencer**, additive compounds of 3:5-dibromo-*o*-toluidine with metallic salts, i, 653.

- Hann, R. M.** See also *G. L. Keenan*, and *K. S. Markley*.
- Hanot, (Mlle.) M.**, width of rays in the Balmer series in the oscillating discharge, ii, 170.
- Hans, F.**, oxidation of tervalent chromium by silver oxide in alkaline solution, ii, 316.
- Hanselmayer, F.** See *A. Zinke*.
- Hansen, G.**, fine structure of hydrogen lines, ii, 1097.
- Hansen, K.**, alcohol tolerance in man, i, 1503.
- Hansen, T. S.**, diastase in the urine in pancreatic diseases, i, 856.
- Hansen-Schmidt, E.** See *H. P. Kaufmann*.
- Hanson, D.**, and (*Miss*) *G. W. Ford*, effects of impurities on copper. II. Effect of iron on copper, ii, 317.
- Hanson, D.**, and *M. L. V. Gaylor*, constitution of alloys of aluminium, copper, and zinc, ii, 974.
- Hanson, D.** See also *F. S. Tritton*.
- Hantzsch, A.**, isotoid and the so-called "isatole," i, 700.
supposed "3-hydroxyindazole" and the so-called "structural association" of *G. Heller*, i, 702.
nature of hydrogen halides, ii, 359.
nature of undissociated acids, ii, 512.
- Hantzsch, A.** [with *L. Wolf*], constitution of nitric acid and the nitronium salts formed from it by perchloric and sulphuric acids, ii, 634.
- Hantzsch, A.**, and *H. Carlsohn*, halides of the fourth group as homopolar compounds on the basis of an additive relationship in m. p., ii, 1043.
- Hanzlik, P. J.**, and *N. E. Prescho*, salicylates. XV. Liberation of salicyl from and excretion of salicyl salicylate. XVI. Liberation of salicyl from and excretion of methyl salicylate, with a note on the irregular toxicity of the ester in man, i, 1501.
- Happold, F. C.**, and *H. S. Raper*, tyrosinase-tyrosine reaction. III. Supposed deaminising action of tyrosinase on amino-acids, i, 474.
- Hara, R.**, and *H. Miura*, synthesis of sodium cyanide from sodium sulphate or sodium chloride, i, 645.
- Hara, R.**, and *H. Sinozaki*, saturated vapour pressure of hydrocyanic acid, ii, 279.
catalytic oxidation of hydrogen cyanide, ii, 983.
- Hara, T.**, catalytic action. VIII. Catalytic reduction of β -naphthylamine, i, 536.
- Hara, T.**, and *S. Komatsu*, catalytic action. XVI. Synthesis of nitriles, i, 893.
- Harada, T.** See *C. A. Kraus*.
- Harasty, D.** See *E. Abel*.
- Harden, A.**, fermentation by dried yeast preparations, i, 1010.
- Harder, H.** See *H. Staudinger*.
- Harder, M.** See *K. Freudenberg*.
- Harding, L.**, artificial "saccharin" substances; synthesis of diphenyl-4:4'-dicarboxy-3:3'-sulphimide (diphenyl-4:3:4':3'-dicarboxylicsulphinide), i, 670.
- Harding, V. J.**, *K. D. Allin*, *B. A. Eagles*, and *H. B. van Wyck*, effect of high fat diets on content of uric acid in blood, i, 604.
- Harding, V. J.**, *K. D. Allin*, and *H. B. van Wyck*, influence of sodium chloride on uric acid of blood, i, 94.
- Harger, R. N.**, additive compounds of quinol with aliphatic amines, i, 23.
oxidation of quinol in presence of aliphatic amines; formation of bis-alkylaminobenzoquinones, i, 24.
- Hargreaves, R.**, proposed model for the α -particle, and some nuclear series, ii, 835.
- Hári, P.**, testing insulin preparations, i, 617.
- Hariharan, K. V.**, and *J. J. Sudborough*, bromo derivatives of *p*-methoxycinnamic acid, i, 1149.
- Harington, C. R.**, synthesis of 4-(3':4':5'-tri-iodophenyl)-2-pyrrolidone-5-carboxylic acid, i, 1094.
- Harkins, W. D.**, the separation of chlorine into isotopes (isotopic elements) and the whole number rule, ii, 1108.
orientation of molecules in the surfaces of liquids, ii, 1148.
- Harkins, W. D.**, and *H. S. Adams*, overvoltage as a function of current density and the effects of time, temperature, stirring, pressure, nature of surface, and of a superimposed alternating current, ii, 301.
- Harkins, W. D.**, and *N. Beeman*, oriented wedge theory of emulsions, ii, 1154.
- Harkins, W. D.**, and *G. L. Clark*, effect of sodium hydroxide on the surface tension of a solution of sodium nonoate, ii, 857.
- Harkins, W. D.**, and *E. H. Grafton*, unimolecular films on water; oriented adsorption of derivatives of benzene, ii, 658.
- Harkins, W. D.**, and *W. G. Guy*, radioactivity of potassium, rubidium, and other elements, ii, 1109.

- Harkins, W. D., and H. M. McLaughlin**, unimolecular films between liquids: butyric acid between water and hexane, and acetic acid between water and benzene, ii, 771.
structure of films of water on salt solutions. I. Surface tension and adsorption for aqueous sodium chloride solutions, ii, 959.
- Harkins, W. D., and J. W. Morgan**, multimolecular and unimolecular films, ii, 1148.
- Harkins, W. D., and S. B. Stone**, isotopic composition and atomic weight of chlorine in meteorites, ii, 921.
isotopic composition of the element chlorine: the atomic weight of meteoric and terrestrial chlorine, ii, 1108.
- Harkins, W. D.** See also *L. J. Bircher*.
- Harle, J. A.** See *W. M. Thornton*.
- Harman, R. W.**, aqueous solutions of sodium silicates. I. Preparation and electrical conductivity, ii, 1065.
- Harman, R. W., and F. P. Worley**, hydrolysis of alkali cyanides in aqueous solution, ii, 783.
- Harned, H. S.**, activity coefficient of sodium hydroxide in aqueous solution, ii, 397.
activity coefficient of sodium hydroxide in sodium chloride solutions, ii, 398.
activity coefficient of potassium hydroxide in potassium chloride solutions, ii, 398.
activity coefficient and ionic concentration product of water in sodium and potassium chloride solutions, ii, 538.
thermodynamics of solutions of simple electrolytes, ii, 977.
- Harned, H. S., and M. H. Fleysner**, activity coefficients of hydrochloric acid in solutions of ethyl alcohol, ii, 538.
transference numbers of hydrochloric acid in solutions of ethyl alcohol, ii, 542.
- Harned, H. S., and R. D. Sturgis**, free energy of sulphuric acid in aqueous sulphate solutions, ii, 538.
- Harper, H. J.**, determination of ammonia in soils, i, 224.
- Harpuder, K.**, pharmacological effects on the purine metabolism of men. I. Effect of sympathico- and vago-tropic drugs, i, 613.
- Harris, C. R.** See *S. A. Mahood*, and *A. S. Wheeler*.
- Harris, D. T.**, biological action of light, i, 1021.
- Harris, H.**, measurement of the dielectric constants of liquids, ii, 631.
- Harris, J.** See *O. L. Brady*.
- Harris, J. A., W. F. Hoffmann, and A. H. Johnson**, reaction of the cotton plant, i, 758.
- Harris, J. A., J. V. Lawrence, and Z. W. Lawrence**, chloride content of the leaf-tissue fluids of Egyptian and upland cotton, i, 216.
- Harris, L. J.**, combination of proteins, amino-acids, etc., with acids and alkalis and their combining weights as determined by physico-chemical measurements, i, 450.
acid-base titrations and equilibria of weak bases and acids, ii, 155.
- Harrison, D. C.**, catalytic action of traces of iron on the oxidation of cysteine and glutathione, i, 13.
- Harrison, G. A.**, solubilities of calcium soaps, ii, 190.
- Harrison, G. R.**, series limit absorption in sodium vapour, ii, 5.
relative transition probabilities in the sodium atom, ii, 734.
photographic sensitometry with fluorescent oils, i, 930.
- Harrison, G. R., and J. C. Slater**, line breadths and absorption probabilities in sodium vapour, ii, 911.
- Harrison, G. R.** See also *C. S. Forbes*.
- Harrison, J. B.**, occurrence of palladium and of rhodium in British Guiana, ii, 592.
- Harrison, J. B., and C. L. C. Bourne**, occurrence of palladium amalgam (palladium mercuride) in British Guiana, ii, 593.
- Harrison, W. F.** See *G. T. Morgan*.
- Hart, E. B., H. Steenbock, and C. A. Elvehjem**, calcium assimilation. V. Effect of light on calcium and phosphorus equilibrium in mature lactating animals, i, 108.
- Hart, E. B., H. Steenbock, C. A. Elvehjem, and J. Waddell**, iron in nutrition. I. Nutritional anæmia on whole milk diets; utilisation of inorganic iron in formation of hæmoglobin, i, 1354.
- Harteck, P.** See *M. Bodenstein*.
- Harteneck, A.** See *E. Waldschmidt-Leitz*.
- Hartig, H. E.**, apparent transmission of low-velocity electrons through aluminium foil, ii, 921.
- Hartl, K.** See *W. Starlinger*.
- Hartley, H. B., and H. R. Raikes**, preparation of pure methyl alcohol, i, 498.

- Hartley, H. B.** See also *J. E. Frazer*, and *G. Nonhebel*.
- Hartman, A. M.** See *W. A. Turner*.
- Hartman, F. W.** See *A. Bolliger*.
- Hartman, H.** See *P. E. Verkade*.
- Hartmann, F.** See *K. A. Hofmann*.
- Hartmann, M., and H. Kägi.** *N*-carboxylic esters of asymmetrically substituted ethylenediamines, i, 1045.
- Hartmann, W.,** determination of vanadium, ii, 604.
determination of molybdenum as trioxide after precipitation as trisulphide, ii, 1266.
- Hartong, B. D.** See *I. M. Koltthoff*.
- Hartree, D. R.,** relations between the optical spectra of different atoms of the same electron structure. I. Lithium-like and sodium-like atoms, ii, 2.
spectra of some lithium-like and sodium-like atoms, ii, 2.
methods of estimating the successive ionisation potentials of any element, ii, 5.
quantum defect and atomic number, ii, 467.
atomic structure factor in the intensity of reflection of *X*-rays by crystals, ii, 735.
ionisation potential of ionised manganese, ii, 918.
- Hartridge, H., and F. J. W. Roughton,** improvements in the apparatus for measuring the velocity of very rapid chemical reactions, ii, 47.
kinetics of hæmoglobin. III. Velocity with which oxygen combines with reduced hæmoglobin, ii, 557.
- Hartung, E. J.,** photochemical decomposition of silver bromide, ii, 57.
- Hartung, K.** See *P. W. Neber*.
- Hartwell, G. A.,** brown and white bread in the diet of the rat, i, 211.
possible correlation between dietary protein and loss of fur in young growing rats, i, 464.
comparison of dried and evaporated milks by a dietetic method, i, 751.
improved technique for use with synthetic diets, i, 1514.
- Harvey, C. O.,** reduction of chloric acid and chlorates by ferrous sulphate, ii, 1197.
- Harvey, E. H.,** electro-dialysis of agar, ii, 293.
physico-chemical study of U.S.P. agar, ii, 965.
- Harvey, E. M.,** rôle of carbohydrates and nitrogen in the growth of summer shoots of the apple, i, 1367.
- Harvey, E. N.,** inhibition of *Cypridina* luminescence by light, i, 1212.
- Harvey, H. W.,** oxidation in sea water, ii, 1171.
- Harvey, R. B.,** enzymes of thermal algae, i, 746.
- Harvey, W. G.,** production of metallic magnesium from fused salts, ii, 570.
- Harwood, H. F.** See *A. Brammall*, and *A. Russell*.
- Hasche, R. L.,** new oxide of nitrogen, nitroso-nitrogen trioxide, and its bearing on the oxidation of nitric oxide, ii, 988.
- Hasche, R. L., and W. A. Patrick,** rate of oxidation of nitric oxide. II. Velocity of the reaction between nitric oxide and oxygen at 0° and 30°, ii, 681.
- Hasenfratz, V.** See *L. J. Simon*.
- Hashimoto, H.,** blood chemistry in acute histamine intoxication, i, 1005.
- Hashimoto, T.,** chaulmoogra oil. I., i, 1234.
- Haslam, J.** See *F. Challenger*.
- Haslam, R. T., R. L. Hershey, and K. H. Keen,** effect of gas velocity and temperature on rate of absorption, ii, 106.
- Haslam, R. T., W. G. Lovell, and R. D. Hunneman,** radiation from non-luminous flames, ii, 475.
- Hassel, O.,** crystal structure of potassium dihydrogen phosphate and its isomorphs, ii, 1130.
- Hastings, A. B., J. Sendroy, jun., and W. Robson,** acidosis. XXI. Colorimetric determination of p_H of urine, i, 1490.
- Hastings, A. B.** See also *C. D. Murray*, and *J. M. Neill*.
- Hatano, J.,** taka-rennin, i, 102.
hydrolysis of silk fibroin peptone by taka-diastase, i, 201.
hydrolysis of amygdalin by taka-diastase, i, 201.
hydrolysis of various β -glucosides by taka-diastase, i, 201.
- Hatcher, P. R.** See *M. Nierenstein*.
- Hatcher, W. H., and G. W. Holden,** hydrogen peroxide as an oxidising agent in acid solution. II. (i) Oxalic acid. (ii) Formic acid, ii, 684.
- Hatley, C. C.,** index of refraction of calcite for *X*-rays, ii, 21.
- Hatschek, E.,** effect of drying on permanently deformed gels, ii, 667.
elasticity of ammonium oleate solutions and the variable viscosity of two-phase systems, ii, 862.
- Hatschek, E., and R. H. Humphry,** physical differences between sols and gels of agar, ii, 34.

- Hatschek, E.**, and **P. C. L. Thorne**, metal sols in non-dissociating liquids. II. Composition of the disperse phase of nickel sols in benzene and toluene, ii, 197.
- Hattori, S.**, acaciin, a new flavone glucoside from the leaves of *Robinia pseudacacia*, L., i, 1443.
- Haubold, E.** See **W. Eller**.
- Hauer, F. von**, entropy and probable state of ideal gases, ii, 495.
- Hauestadt, L.** See **R. Fricke**.
- Hauge, S. M.**, and **C. W. Carrick**, antiscorbutic properties of eggs, i, 1021.
- Hauge, S. M.** See also **C. W. Carrick**.
- Haughton, J. L.**, and **W. T. Griffiths**, β -transformations in copper-zinc alloys, ii, 973.
- Haunschild, H.** See **W. Manchot**.
- Haupt, B.** See **A. Pieroni**.
- Haurowitz, F.**, and **W. Petrou**, pancreatic enzymes. XIII. Optimum p_H for gastric lipase in different animals, i, 742.
- Haurowitz, F.** See also **P. Rona**, and **R. Willstätter**.
- Hause, W.** See **F. Henning**.
- Hauser, F.** See **R. Eder**.
- Haussmann, H.** See **H. Wieland**.
- Havestadt, L.**, and **R. Fricke**, synthesis of certain dipeptides of complex natural amino-acids, i, 162.
- Havighurst, R. J.**, crystal structure of mercurous halides, ii, 748.
- Havighurst, R. J.**, **E. Mack, jun.**, and **F. C. Blake**, precision crystal measurements on alkali and ammonium halides, ii, 17.
solid solutions of the alkali and ammonium halides, ii, 502.
- Havighurst, R. J.** See also (*Miss*) **A. H. Armstrong**.
- Haworth, R. D.**, and **W. H. Perkin, jun.**, synthetical experiments in the isoquinoline group. I., III., and IV., i, 968, 969, 970.
- Haworth, R. D.**, **W. H. Perkin, jun.**, and **H. S. Pink**, synthetical experiments in the isoquinoline group. V. Synthesis of substances allied to oxyberberine, i, 1168.
- Haworth, R. D.**, **W. H. Perkin, jun.**, and **J. Rankin**, synthetical experiments in the isoquinoline group. II., i, 969.
synthesis of *dl*-dicentrine, i, 1314.
- Haworth, R. D.**, and **H. S. Pink**, action of phosphorus pentachloride on 2-oximino-1-hydrindones, i, 929.
- Haworth, W. N.**, revision of the structural formula of dextrose, i, 1133.
- Haworth, W. N.**, **D. A. Ruell**, and **G. C. Westgarth**, amylenic- and butylenic-oxidic forms of tetramethylgalactose, i, 117.
- Haworth, W. N.** See also **S. Baker**.
- Hay, R.** See **J. H. Andrew**.
- Hayashi, K.**, influence of alcohol on the viscosity of blood-serum, ii, 663.
- Hayner, L. J.**, persistence of the radiation excited in mercury vapour, ii, 1017.
behaviour of mercury arc lines after removal of the exciting potential, ii, 1102.
- Haynes, D.**, physiology of apples. I. Change in the acid content of stored apples and its physiological significance, i, 345.
- Headden, W. P.**, luminescence in the Ingleside calcites affected by acids, ii, 89.
- Heap, H.**, and **B. H. E. Cadness**, influence of carbohydrates on hydrogen sulphide production by *Bacillus aertrycke* (mutton), i, 480.
- Heaps, C. W.**, thermo-electric power and the Hall coefficient, ii, 1135.
- Heathcote, R. St. A.**, pharmacological action of cryptopine, i, 734.
- Hebeisen, J.**, compressibilities of some organic liquids, ii, 763.
- Heckel, H.**, and **R. Adams**, platinum oxide as a catalyst in the reduction of organic compounds. X. Reduction of aminophenols to cyclic amino-alcohols, i, 909.
- Heckscher, H.**, fat + cholesterol content of the blood of cretins, i, 999.
fat + cholesterol content of the blood of thyroidectomised horses, i, 999.
- Heckscher, H.** See also **H. J. Bing**.
- Heckscher, R.** See **R. Kuhn**.
- Heczko, T.**, determination of large quantities of manganese by titration with permanganophosphoric acid, ii, 440.
- Hedestrand, G.**, influence of thin surface films on the evaporation of water, ii, 102.
- Hedges, E. S.**, and **J. E. Myers**, some metallic couples decomposing water at the ordinary temperature, ii, 306.
periodic dissolution of metals, ii, 309.
periodic electrochemical phenomena, ii, 680.
periodic crystallisation of pure substances, ii, 1168.
- Hedin, S. G.**, application of the law of mass action to the course of enzyme action, i, 1212.
- Hedvall, J. A.**, reactivity of solid phases, ii, 125.
complex uranyl carbonates, ii, 990.

- Hedvall, J. A., and J. Heuberger**, reactions between solid phases. IV., ii, 306.
- Hee, A.** See *E. F. Terroine*.
- Heermann, P.**, action of ultra-violet light on "dye and textile fibre" systems, ii, 144.
- Heess, W.** See *W. Küster*.
- Hefner, H.** See *W. Autenrieth*.
- Hefter, J.**, organic bases in urine, i, 1350.
decomposition of carnosine by intestinal bacteria, and its relation to autointoxication, i, 1362.
- Hefsti, P., and W. Schilt**, preparation of [citric] esters, i, 394.
- Heiduschka, A., and E. Komm**, relation between constitution and taste of α -amino-acids, i, 522.
relation between constitution and taste of α -amino-acids. II. Relation between "degree of sweetness" and concentration of aqueous solutions of amino-acids, i, 1389.
- Heiduschka, A., and C. Pryiki**, isolation of lignoceric acid from arachis oil, i, 229.
- Heilbron, I. M., T. A. Forster, and A. B. Whitworth**, interaction of ethyl acetoacetate and *o*-hydroxydistyryl ketones. II., i, 1284.
- Heilbron, I. M., F. N. Kitchen, E. B. Parkes, and G. D. Sutton**, chemical reactivity and conjugation. II. Reactivity of the 2-methyl group in the 4-quinazoline series, i, 1320.
- Heilbron, I. M., G. H. Walker, and J. S. Buck**, styrylbenzopyrylium salts. V. Distyryl derivatives of 7-hydroxy-2:4-dimethylbenzopyrylium chloride, i, 694.
- Heilbron, I. M.** See also *W. H. Cooke, and G. H. Walker*.
- Heilbrunn, V.**, electrical charges of living cells, i, 1492.
- Heilingötte, R.**, separation of small quantities of calcium from large amounts of magnesium, ii, 437.
- Heilmann, R.** See *R. Locquin*.
- Hein, F.** [with *E. Petzchner, K. Wagler, and F. A. Segitz*], behaviour as salts of alkali alkyls dissolved in metal alkyls, ii, 217.
- Hein, F., and K. Wagler** [with *W. Retter*], preparation of symmetrical organic compounds of mercury, i, 1341.
- Hein, F., and H. Meininger**, metallo-organic bases, ii, 842.
- Heinelt, H.**, phosphorus and calcium metabolism in an adult male, i, 1497.
- Heinlein, H.**, melanotic pigments, i, 449.
- Heinlein, H.** See also *H. Reinwein*.
- Heisenberg, W.**, anomalous Zeeman effects, ii, 3.
influence of the deformation of ions on optical and chemical constants, ii, 16.
quantum theory of multiplet structure and the anomalous Zeeman effect, ii, 729.
- Hektoen, L., and K. Schulof**, precipitin reaction of thyroglobulin, i, 1345.
- Hektoen, L., and W. H. Welker**, precipitin reactions of serum proteins, i, 323.
precipitin reaction of Bence-Jones' protein, i, 328.
precipitin reactions of fibrinogen, i, 1487.
- Helberg, H.**, freezing-point curve of aqueous sodium nitrite solutions, ii, 971.
- Helbig, M.** See *E. Knickmann*.
- Heldermann, W. D.** See *E. Cohen*.
- Hele, T. S.** See *H. I. Coombs*.
- Helfer, L.** See *A. Pictet*.
- Helferich, B., and J. Becker**, synthesis of a disaccharide-glucoside, i, 9.
- Helferich, B., and H. Dehe**, triphenylcarbinol hydrochloride, i, 1269.
- Helferich, B., and F. A. Fries**, hydroxyaldehydes. VIII., i, 1039.
- Helferich, B., L. Moog, and A. Jünger**, replacement of reactive hydrogen atoms in sugars, hydroxy- and amino-acids by the triphenylmethyl residue, i, 790.
- Helferich, B., and W. Schäfer**, hydroxyaldehydes. VII., i, 7.
- Helferich, B., G. Sprock, and E. Besler**, *d*-glucose ϵ -dichlorohydrin, i, 792.
- Helleberg, K.** See *E. Melin*.
- Hellenbrand, W., and G. Joachimoglu**, antiseptic action of mercuric chloride in solvents of different dielectric constants, i, 466.
- Heller, G.**, organic thiosulphates, i, 313.
- Heller, G.** [with *A. Buchwaldt, R. Fuchs, W. Kleinicke, and J. Kloss*], tautomerisation phenomena in heterocyclic compounds, i, 1323.
- Heller, G.** [with *E. Göring, J. Kloss, and W. Köhler*], quinazolones from acylated *o*-aminobenzhydrazides, i, 1322.
- Heller, G., and K. Müller-Bardorff**, *o*-4-bromo-*m*-toluoylbenzoic acid, i, 546.
- Heller, G., and G. Spielmeyer**, isomerism of anilino-*m*-nitrophenyl-acetonitrile, i, 814.
indazoles from *o*-nitromandelonitrile, i, 838.

- Heller, G.**, and **R. Fuchs**, new isomerism in the isatin series, i, 1166.
- Heller, J.** See **J. K. Parnas**.
- Heller, V. G.**, **C. H. McElroy**, and **B. Garlock**, effect of bacterial flora on biological test for vitamin-B, i, 1365.
- Hellmann, H.**, and **H. Zahn**, new method for determining the dielectric constants of electrolytes which conduct well, ii, 1117.
- Hellweg, H.** See **H. Braune**.
- Helman, F. D.** See **A. F. Hess**.
- Helmholz, K.** See **G. y Roig**.
- Helmick, P. S.**, quantity of ultra-violet light energy required to render developable a grain of photographic silver bromide, ii, 143.
- Helmrich, G.** See **W. Eller**.
- Helwig, H.** See **K. Lindner**.
- Henderson, G. G.** See **J. M. Robertson**.
- Henderson, G. H.**, capture and loss of electrons by α -particles, ii, 922.
- Henderson, J. M.**, effect of irradiation and diet on calcium and phosphorus metabolism, i, 485.
- Henderson, J. M.** See also **J. B. Orr**.
- Henderson, L. J.**, and **C. D. Murray**, blood as a physicochemical system. III. Deductions concerning the capillary exchange, i, 1483.
- Hendricks, S. B.** See **L. Pauling**.
- Hendrix, B. M.**, and **D. B. Calvin**, loss of basis in diuresis and its effect on the alkali reserve of the blood, i, 1350.
- Hendrixson, W. S.**, action of some oxidising agents on sulphite and its [volumetric] determination with iodate, ii, 712.
action of some oxidising agents on sulphite. II., ii, 1001.
- Hendry, J. L.** See **E. J. Cohn**.
- Henglein, F. A.**, thermal expansion of alkali-metal halides at low temperatures. I. and II., ii, 375, 950.
molecular volumes of crystals, ii, 477.
thermal expansion of crystals and chemical constitution, ii, 935.
- Henley, R. R.**, mechanism of the reaction between formaldehyde and serum proteins, i, 716.
- Henning, F.**, and **W. Hause**, micro-pyrometer of the spectrometer type, ii, 427.
- Henri, V.**, and **C. Fromageot**, absorption spectra of pyruvic acid; existence of tautomeric forms, ii, 929.
- Henri, V.**, and **M. C. Teves**, absorption spectrum and constitution of sulphur vapour, ii, 19, 87.
- Henri, V.** See also **J. Errera**.
- Henrich, F.**, and **F. Götz**, dyes and other derivatives of cresorcinol, i, 913.
- Henrijean, E.**, and **W. Kopaczewski**, colloids and mineral waters, ii, 291.
- Henry, D. C.**, and **V. A. Morris**, influence of anions on the coagulation of a negative colloidal sol, ii, 34.
- Henry, T. A.**, and **H. Paget**, chenopodium oil. II. The hydrocarbon fraction, i, 1162.
- Henry, T. A.**, **T. M. Sharp**, and **H. C. Brown**, bactericidal action of some organic compounds of mercury, i, 1006.
- Henry, T. A.** See also **J. A. Goodson**, and **Wellcome Foundation, Ltd.**
- Hensel, A.** See **H. Stobbe**.
- Hensle, A.** See **G. Scheuing**.
- Henstock, H.**, action of natural waters on copper, ii, 696.
- Hentschel, H.**, lactic acid "fatigue maximum" of different muscles of the frog, i, 728.
- Hentschel, H.** See also **G. Embden**.
- Henwood, A.**, **R. M. Garey**, **W. Goldberg**, and **E. Field**, generation of hydrogen sulphide, ii, 705.
- Heuze, H. R.** See **A. J. Hill**.
- Hepburn, J. R. I.**, mechanism of the formation of malachite from basic cupric carbonate, ii, 696.
- Hepburn, J. S.**, and **R. H. Stroh**, chemistry of alkatani, i, 108.
- Heppenstall, J. A.**, and **W. J. Shutt**, conditions of the appearance of anode effect in the electrolysis of fused chlorides, ii, 45.
- Herasymenko, P.**, solutions of mannito-aluminates, i, 774.
dropping mercury cathode. IV. Changes in overvoltage with the concentration of hydrogen ions, ii, 675.
reduction of uranyl salts by means of a dropping mercury cathode, ii, 695.
- Herboth, L.**, glucoside content of wood-ruff (*Asperula odorata*), i, 760.
use of aminosulphonic acid as a standard in volumetric analysis, ii, 155.
- Herbst, H.**, influence of salt content on the adsorptive power of an active charcoal and a review of the chief properties of the more important technical active charcoals, ii, 956.
- Heresco.** See **Banu**.

- Hérissey, H.**, presence of a glucoside hydrolysed by emulsin in *Baillonia spicata*, H. Bn., and its products of hydrolysis, i, 147.
chemical composition of *Asperula odorata* (woodruff); extraction and properties of a new glucoside, asperuloside, i, 1165.
asperuloside, a glucoside obtained from odoriferous *Asperula*, i, 1369.
- Hérissey, H.**, and **J. Cheymol**, extraction and properties of gein, the glucoside containing eugenol, of *Geum urbanum*, L., i, 487.
sugars obtained from gein, i, 1383.
- Hermann, L.** See **A. Schaarschmidt**.
- Hermans, P. H.**, constitution of the boric acids and some of their derivatives, i, 500.
solubility curves in the systems, mannitol-boric acid-water and *cis*-tetrahydronaphthalene-1:2-diol-boric acid-water at 25°, i, 501.
adsorption of the two stereoisomeric hydrobenzoins on charcoal, ii, 31.
reaction of some glycols with acetone, ii, 50.
- Hermans, P. H.** See also **J. Berk**, and **H. Gelissen**.
- Hermersdörfer, C.** See **A. Scheunert**.
- Hermesen, W.** See **H. Wieland**.
- Herr, W. N.** See **F. O. Anderegg**.
- Herrmann, F.**, and **M. Rohner**, colloidal theory of hæmolytic, i, 1202.
- Herrmann, K.**, influence of the gas content on the photo-electric behaviour and electrical conductivity of platinum, ii, 947.
- Herschkovitch, M.**, volumetric determination of copper with potassium iodide, ii, 904.
- Herschmann, O.** See **S. Fränkel**.
- Hershey, R. L.** See **R. T. Haslam**.
- Hertz, G.**, resonance lines of neon, ii, 723.
- Hertz, G.**, and **R. K. Kloppers**, excitation and ionisation potentials of the noble gases, ii, 342, 730.
- Hertz, G.**, and **J. C. S. de Visser**, excitation of spectral lines by electron impact. II., ii, 338.
- Hertzmann, A. B.**, and **H. C. Bradley**, autolysis. XIII. Kinetics of autolytic mechanism, i, 102.
- Herz, W.**, temperatures of corresponding densities, ii, 494.
validity of gas equations. I., ii, 496.
saturation pressure of liquids at corresponding densities, ii, 850.
equal viscosities, ii, 1019.
density and temperature. V., ii, 1141.
- Herz, W.**, and **W. Bloch**, physico-chemical investigations on compounds of the cyclohexane series, ii, 98.
- Herz, W.**, and **E. Martin**, solubility of lead chloride in acetic acid, ii, 283.
- Herz, W.**, and **A. Wegner**, relative internal friction, ii, 482.
- Herz, W.** See also **R. Lorenz**.
- Herzberg, G.** See **H. Kautsky**.
- Herzer, F.** See **L. Vanino**.
- Herzfeld, E.**, and **W. Engel**, lipases from the thyroid stable to quinine and atoxyl, i, 201.
- Herzfeld, E.**, and **A. Haemmerli**, bile in metabolism; determination of bile acids, i, 722.
- Herzfeld, K. F.**, vapour pressures and miscibilities of binary liquid mixtures, ii, 1143.
- Herzfeld, K. F.**, and **K. L. Wolf**, classical dispersion formula in the case of monatomic gases and vapours, ii, 182, 478.
dispersion of potassium chloride and sodium chloride, ii, 1119.
- Herzog, R. O.**, ethers of polysaccharides and hydroxy-acids, i, 371.
constitution of proteins, i, 450.
constitution of cellulose, i, 639.
cellulose fibre, i, 1045.
- Herzog, R. O.**, and **H. W. Gonnell**, Röntgen spectrographic comparison of tunicin and lichenin with cellulose, i, 371.
nature and production of inorganic structures in the organism, i, 718.
collagen, i, 1488.
- Herzog, R. O.**, and **K. Weissenberg**, the molecule in crystals, ii, 942.
- Herzog, W.**, relation between resin-forming capacity and chemical constitution, i, 386.
- Heslinga, J.**, determination of carbon, hydrogen, and nitrogen in organic compounds, ii, 65.
- Hess, A. F.**, and **F. D. Helman**, phosphate and total phosphorus content of human and cow's milk, i, 1204.
- Hess, A. F.**, and **M. Weinstock**, antirachitic properties imparted to inert fluids and to green vegetables by ultra-violet irradiation, i, 212.
antirachitic properties imparted to inert substances by ultra-violet irradiation, i, 750.
antirachitic value of irradiated cholesterol and phytosterol. II. Change in biological activity. III. Chemical change shown by absorption spectra, i, 1020.

- Hess, *A. F.*, *M. Weinstock*, and *F. D. Helman*, antirachitic value of irradiated phytosterol and cholesterol. I, i, 750.
- Hess, *K.* [action of alkali on ethyl alcohol and the "nitric oxide reaction" of *W. Traube*], i, 58.
- cellulose, i, 118.
- hydro- and oxy-cellulose, i, 519.
- mercerisation of cellulose, ii, 782.
- Hess, *K.* [with *W. Weltzien* and *H. Nakamura*], determination of the reducing power of cellulose products, ii, 245.
- Hess, *K.*, and *R. Bappert*, syntheses in the undecane series, i, 349.
- hygrine alkaloids. V. Degradation of cuskhygrine to undecane and undecan-6-ol, i, 424.
- Hess, *K.*, and *R. Grau*, asymmetric tervalent nitrogen atom. V. Conhydrine and methylisopelletierine, i, 425.
- Hess, *K.*, and *E. Messmer*, composition of solutions of cellulose in ammoniacal copper oxide, ii, 662.
- Hess, *K.*, *E. Messmer*, and *N. Ljubitsch*, cellulose. XVII. Characterisation of cellulose preparations, i, 1246.
- Hess, *K.*, and *G. Salzmann*, octaethylcellobiose and its acetolysis, compared with cellobiose and octa-acetylcellobiose, i, 1383.
- Hess, *K.*, *G. Schultze*, and *E. Messmer*, cellulose. XVI. Crystalline cellulose acetates. II, i, 1245.
- Hess, *K.*, and *W. Weltzien*, cellulose. XI. Trimethylcellulose-*A* and its scission, i, 517.
- Hess, *K.*, *W. Weltzien*, and *R. Singer*, cellulose. XIII. Acetolysis of cellulose. I, 641.
- Hesse, *A. R. F.* See *R. Willstätter*.
- Hessel, *F. A.* See *H. Gault*.
- Hetényi, *G.* See *A. von Fejér*.
- Hetterschij, *C. W. G.* See *E. Cohen*.
- Heuberger, *J.* See *J. A. Hedvall*.
- Heubner, *W.*, calcium content of organs of cats treated with calcium [salts]. V., i, 613.
- Heuck, *C.* See *H. Lecher*.
- Heumann, *J.* See *P. A. Thiessen*.
- Heuser, *E.*, alkali-cellulose, i, 119.
- depolymerisation of cellulose, i, 1387.
- Heuser, *E.*, and *R. Bartunek*, alkali-cellulose. II., i, 520.
- Heuser, *E.*, and *A. Brotz*, chemical nature of deciduous woods, i, 889.
- Heuser, *E.*, and *W. Niethammer*, alkali-cellulose. I., i, 520.
- Heuser, *E.*, and *W. Schott*, degradation of cellulose by formic acid, i, 370.
- Hevesy, *G. von*, atomic weights of zirconium and hafnium, ii, 255.
- discovery and properties of hafnium, ii, 708.
- regularity in the rare earth and titanium groups, ii, 938.
- Hevesy, *G. von*, and *V. Berglund*, density of zirconium and hafnium oxides, ii, 25.
- Hevesy, *G. von*, *J. A. Christiansen*, and *V. Berglund*, solubility of the double fluorides of zirconium and hafnium, ii, 505.
- Hevesy, *G. von*, and *V. T. Jantzen*, hafnium content of zirconium ores. II., ii, 430.
- Hevesy, *G. von*, and *K. Kimura*, phosphates of zirconium and hafnium, ii, 1085.
- solubilities of the phosphates of zirconium and hafnium, ii, 1147.
- Hevesy, *G. von*, and *E. Madsen*, separation of hafnium from zirconium, ii, 425.
- Hevesy, *G. von*, and *A. Obrutscheva*, self-diffusion in solid metals, ii, 500.
- Hewetson, *S. W.* See *O. L. Brady*.
- Hewitt, *L. F.*, diazo reaction in uræmic sera, i, 726.
- Hewitt, *L. F.*, and *J. Kenyon*, dependence of rotatory power on chemical constitution. XXV. Three optically active alcohols containing a phenyl group and some esters derived therefrom, i, 914.
- Heydweiller, *F.* See *H. Lecher*.
- Heyn, *W.* See *F. Straus*.
- Heyrovský, *J.*, electrolysis at the mercury dropping cathode, ii, 43, 133.
- significance of the electrode potential, ii, 211.
- electrode, contact, and electro-kinetic potentials of galvanic cells, ii, 404.
- solvation of ions and the electrode potential, ii, 544, 672.
- dropping mercury cathode. I., ii, 673.
- dropping mercury cathode. III. Theory of over-potential, ii, 675.
- analytical chemistry of indium, ii, 717.
- physical significance of electrolytic solution tension, ii, 793.
- Heyrovský, *J.*, and *M. Shikata*, dropping mercury cathode. II. The polarograph, ii, 674.
- Heyse, *M.* See *Hans Fischer*.
- Hibbard, *P. L.*, determination of nitrates, ii, 240.
- Hibbert, *E.* See *E. Knecht*.

- Hibbert, H., and C. P. Burt, benzoyl-hydroperoxide [perbenzoic acid]; preparation and application to organic synthesis, i, 1147.
- Hibino, S., conditions influencing production of colouring matter of *Monascus purpureus*, Went, i, 1118.
- Hickethier, C. F., and A. Jacobucci, presence of iodate in surface waters, ii, 1197.
- Hickinbottom, W. J. See G. T. Morgan.
- Hicks, C. S., relationship of thyroxin to tryptophan, ii, 473.
- Hicks, W. M., Sommerfeld's and Landé's rules for classification of terms and Zeeman patterns in spectra, ii, 3.
generally accepted explanation of the Zeeman triplet on a quantum basis, ii, 729.
- Hidnert, P., thermal expansion of aluminium and various important aluminium alloys, ii, 375.
- Hieber, W. [with R. Becker, and R. Wagner], ring formation in additive compounds. II. Constitution of compounds of stannic chloride with polycarboxylic esters; compounds of stannic halides with isomeric diamines, i, 1325.
- Hiebert, P. G. See O. Maass.
- Hiemesch, H. See D. Vorländer.
- Hieulle, A. See R. Fosse.
- Higginbotham, L., A. Lapworth, and C. Simpson, interaction between ethyl ethylenemalonate and anilinophenyl-acetonitrile, i, 35.
- Higginbotham, L. See also R. G. Fargher.
- Hilberg, H. See E. Becker.
- Hilditch, T. P. See E. F. Armstrong.
- Hildt, E., analysis of mixtures of sugars, ii, 244.
- Hilger, J. See Hans Fischer.
- Hill, A. E., and I. Mosbacher, binary system consisting of *o*-cresol and *p*-cresol, ii, 1161.
- Hill, A. J., and H. R. Henze, condensation reactions of cyclic ketones. I. Action of isatin and isatin α -chloride on certain hydantoins, i, 305.
- Hill, A. J. See also A. W. Francis.
- Hill, A. V. See K. Furusawa.
- Hill, E. E. See A. G. Tool.
- Hill, L. See T. A. Webster.
- Hill, R., haemoglobin in relation to other metallo-haematoporphyrins, i, 994.
- Hill, R. A., photochemical decomposition of gaseous sulphur dioxide, ii, 56.
- Hill, T. G. See P. Haas.
- Hiller, A., G. C. Linder, and D. D. Van Slyke, reducing substances of the blood, i, 1200.
- Hilmer, H. See Hans Fischer.
- Hingst, G. See O. Mumm.
- Hinsberg, O., derivatives of *iso*- β -naphthyl-3:4-dihydroxy- α -naphthylsulphone, i, 1062.
- Hinshelwood, C. N., critical increment of chemical reactions, ii, 874.
- Hinshelwood, C. N., and R. E. Burk, thermal decomposition of ammonia upon various surfaces, ii, 691.
- Hinshelwood, C. N., and C. R. Prichard, comparison between the homogeneous thermal decomposition of nitrous oxide and its heterogeneous catalytic decomposition on the surface of platinum, ii, 310.
catalytic decomposition of nitrous oxide on the surface of gold: a comparison with the homogeneous reaction, ii, 567.
relation of homogeneous to catalysed reactions; catalytic decomposition of hydrogen iodide on the surface of gold, ii, 981.
interaction of carbon dioxide and hydrogen on the surface of tungsten, ii, 983.
- Hinshelwood, C. N., and C. W. Thornton, energy distribution law appropriate to the theory of chemical reaction velocity, ii, 1167.
- Hinshelwood, C. N. See also C. R. Prichard.
- Hiraidzumi, T. See S. Komatsu.
- Hiratsuka, E., occurrence of tryptophan in silk fibroin, i, 836.
- Hirsch, B. See O. Ruff.
- Hirsch, E. F., adsorption of cresol-red by serum in spectrophotometric determination of p_{H} , i, 606.
- Hirsch, J., biochemistry of *Vibrio cholerae*, i, 479.
- Hirschberg, E. See H. Winterstein.
- Hirschfelder, A. D. See H. H. Jensen, and T. P. Quigley.
- Hirsch-Kauffmann, H., determination of lactic acid in animal organs, i, 96.
- Hirschkind, W., analysis of xanthate, ii, 1212.
- Hirsch-Mammoth, P., and H. Rindfleisch, pepsin determinations on gastric juice by the method of Boas, i, 1213.
- Hirst, E. L., A. K. Macbeth, and D. Traill, action of hydrazine on halogen derivatives of malonamides and acetoacetic esters, i, 1251.
- Hirst, E. L., and G. J. Robertson, constitution of the normal monosaccharides. II. Arabinose, i, 364.
- Hirst, E. L. See also J. Pryde.
- Hirst, H. S., thermal decomposition of nitrogen pentoxide, ii, 554.

- Hirzel, H.**, preparation of benzylresorcinol, i, 393.
- Hissink, D. J.**, base exchange in soils, i, 222.
saturation capacity of mineral soils, i, 490.
- Hissink, D. J.**, and *J. van der Spek*, acidity of soils, i, 1525.
- Hissink, D. J.** See also *R. M. Barnette*.
- Hitchcock, D. L.**, protein films on colloidal membranes, ii, 1054.
- Hjalmar, E.**, and *M. Siegbahn*, anomalous dispersion in the field of X-rays, ii, 92.
- Hjort, A. M.**, *S. C. Robison*, and *F. H. Tendick*, active extract from external parathyroid glands of the ox, i, 1364.
- Hoagland, D. R.**, effect of the plant on the reaction of the culture solution, i, 1368.
- Hoagland, D. R.** See also *W. C. Dayhuff*.
- Hocart, R.** See *H. Copaux*.
- Hochstetter, H. von.** See *K. Freudenberg*.
- Hock, A.** See *H. Niklas*.
- Hock, L.**, Joule effect in rubber, ii, 969.
- Hodel, E.**, biochemistry of the alkaline earths, i, 1496.
- Hodel, E.** See also *H. Rupe*.
- Hodel, P.**, and *N. Neuenschwander*, fermentation and iron salts, i, 615.
- Hodson, H. H.**, action of lead monoxide on *oo'*-dithioaniline; an example of simple thiazine formation, i, 596.
behaviour of the sulphides of sodium in aqueous and alcoholic media; a contribution towards elucidating the structure of sulphide dyes, i, 1104.
nitro compounds with special reference to the nitration of *m*-chloronitrobenzene and *p*-chlorotoluene, i, 1397.
- Hodgson, H. H.**, and *H. G. Beard*, 2-nitro-*m*-cresol and 2-amino-*m*-cresol, i, 540.
bromo derivatives of *m*-hydroxybenzaldehyde, i, 674.
- Hodgson, H. H.**, and *F. H. Moore*, nitration of *m*-chlorophenol, i, 1144.
nitrosation of phenols. II. Nitrosation of 3-bromo-, 2-bromo-, 3-iodo-, and 2-iodo-phenol; evidence for the nitroso formula of 4-nitrosophenol, i, 1408.
- Hodgson, H. H.**, and *J. H. Wilson*, reactions of sodium mono-, di-, and tri-sulphides with 1-chloro-2-nitro-, 1-chloro-4-nitro-, and 1:4-dichloro-2-nitro-benzene, i, 532.
- Hodler, A.** See *A. Magnus*.
- Höber, R.**, theory of the bioelectric cell, ii, 131.
- Hoefler, T.** See *R. Schwarz*.
- Hoeffel, G. N.**, and *M. E. Moriarty*, amino-acid content of blood of infants and children, i, 1484.
- Högler, F.**, and *K. Ueberrack*, sugar content of blood-corpuscles, i, 453.
- Hoehn, E.**, 4:5-diamino-*o*-benzoquinone and derivatives, i, 938.
- Hoehn, E.** See also *F. Kehrman*.
- Hoek, H.** See *H. Wieland*.
- Höllen, J.**, colostrum, i, 1490.
- Hölzl, F.** See *Robert Müller*.
- Hönig, R.** See *Robert Müller*.
- Hönigschmid, O.**, and *M. Steinheil*, atomic weight of silicon; analysis of silicon chloride, ii, 174.
- Hönigschmid, O.**, and *E. Zintl*, atomic weight of hafnium, ii, 255.
atomic weight of hafnium; analysis of hafnium bromide, ii, 347.
atomic weight of the gold obtained from mercury by Miethe and Stammreich, ii, 924.
- Hönigschmid, O.**, *E. Zintl*, and *F. González*, atomic weight of zirconium, ii, 174.
- Hönl, H.**, and *F. London*, intensities of band lines, ii, 1024.
- Hönl, H.** See also *A. Sommerfeld*.
- Koenshel, H. D.** See *W. M. Latimer*.
- Hoeven, B. J. C. van der.** See *P. A. Levene*.
- Hoeven, C. van der**, volumetric determination of sugar by Schoorl's process, ii, 331.
- Hoff, W.** See *J. A. Wilkinson*.
- Hoffarth, H.** See *K. Schaum*.
- Hoffert, (Miss) D.** See *(Mrs.) I. S. Maclean*.
- Hoffman, A. L.** See *L. Neuffer*.
- Hoffman, W. F.**, sulphur in proteins. II. Effect of mild alkaline hydrolysis on hair, i, 1480.
- Hoffman, W. F.**, and *R. A. Gortner*, proteins. I. Prolamines: their chemical composition in relation to acid and alkali binding, i, 1479.
proteins. II. Alkali binding; comparison of the electrometric titration of proteins and of phosphoric acid with sodium and calcium hydroxides, ii, 1011.
electrodialysis of agar; preparation of the free agar acid, ii, 1158.
- Hoffman, W. F.** See also *R. A. Gortner*, and *J. A. Harris*.
- Hoffman, W. S.**, isolation of adenine nucleotide from blood, i, 711.
- Hoffmann, F. K.** See *E. Koenigs*.

- Hoffmann, G.**, penetrating radiations observed at sea-level, ii, 1110.
- Hoffmann, H.** See *D. Vorländer*.
- Hoffmann, J.** See *G. Schroeter*.
- Hoffmann, W.** See *A. Kötze*.
- Hoffmann-La Roche & Co., F.**, preparation of *O-O*-diacyl derivatives of diphenolisatin and its products of substitution in the phenol and isatin groups, i, 66.
preparation of readily soluble compounds of *C*-substituted dialkyl- and arylalkyl-barbituric acids, i, 300.
- Hofmann, F.**, melting point of platinum, ii, 99.
- Hofmann, F. B., and A. Kohlrausch**, determination of smell thresholds, i, 732.
- Hofmann, H.** See *K. Elbs*.
- Hofmann, K.**, heterogeneous dissociation equilibria of water vapour and of carbon dioxide over iron and its oxides, ii, 537.
mechanism of reduction of iron oxides in a current of gas, ii, 991.
- Hofmann, K. A., and A. Dolde**, acceleration of the catalysis of mixtures of hydrogen and oxygen by oxygen carriers and by the alternating current, ii, 139.
- Hofmann, K. A., F. Hartmann, and K. Nagel**, action of ammonium chloride vapour on metals and the conformity of ammonium salts with hydroxonium salts as acids, ii, 685.
- Hofmeier, H.** See *A. Schaarschmidt*.
- Hofstetter, M.**, detection of chlorophyll degradation products in urine, i, 460.
- Hogben, L. T.** See *C. F. A. Pantin*.
- Hogness, T. R., and E. G. Lunn**, ionisation of hydrogen by electron impact as interpreted by positive ray analysis, ii, 839.
- Hohlfeld, E.** See *O. Ruff*.
- Holben, F. J.** See *J. W. White*.
- Holbøll, S. A.** See *E. Fock, and C. Lundsgaard*.
- Holborn, L., and J. Otto**, isotherms of several gases between $+400^{\circ}$ and -183° , ii, 851.
- Holde, D., and R. Gentner**, linoleic acid and its anhydride, i, 882.
anhydrides of saturated fatty acids containing an even number of carbon atoms (C_8-C_{18}), i, 1005.
stability of the anhydrides of saturated fatty acids towards atmospheric moisture and sodium carbonate solution, i, 1035.
- Holde, D., and A. Gorgas**, additive products of iodine monobromide and hypiodous acid with unsaturated compounds. I., i, 882.
- Holde, D., and M. Selim**, thallium salts of the higher fatty acids, i, 504.
- Holde, D., and K. Takehara**, thallous salts of lauric and myristic acid, i, 1233.
- Holden, G. W.** See *W. H. Hatcher*.
- Holden, H. F.**, presence of glutathione in the corpuscles of mammalian blood, i, 1484.
- Holgersson, S., and E. Sedström**, experimental investigation of the lattice structure of some alloys, ii, 20.
- Holland, F.**, measurement of "negative" oxygen-bands in the visible spectrum region, ii, 1113.
- Holleman, A. F.** See *V. S. F. Berckmans*.
- Holler, H. D.**, method of studying electrode potentials and polarisation, ii, 793.
- Holló, J., and S. Weiss**, clinical method for determining the bicarbonate content of blood plasma, i, 95.
acid-base equilibrium. II. Determination of the hydrogen-ion concentration of the blood. III. Determination of alveolar carbon dioxide tension. IV. Titrimetric determination of hydrogen carbonate in the blood, i, 709.
- Holluta, J.**, mechanism of the reduction of permanganate and its physico-chemical basis. IX. Reduction of permanganate passing from neutral to alkaline solution, ii, 49.
mechanism of the reduction of permanganate and its physico-chemical basis. X., ii, 407.
decomposition of permanganate, ii, 422.
- Holluta, J., and A. Martini**, autocatalytic reaction: ferric chloride-sodium thiosulphate, ii, 215.
kinetics and mechanism of reaction of the reduction of ferric salts by thiosulphate in weakly acid solution, ii, 305.
influence of hydrogen ions on the mechanism of the reduction of ferric salts by sodium thiosulphate, ii, 702.
- Holluta, J., and J. Obrist**, oxidimetric determination of manganese in hydrofluoric acid solution. II., ii, 160.
- Holm, E.** See *C. Fuchtbauer*.
- Holm, S., and H. Tómasson**, protein determination in 0.1 c.c. serum, i, 1485.

- Holmberg, B.**, stereochemical studies. IX. Dithiocarbomalic acids, i, 1238.
- Holmberg, B.**, and *Emil Müller*, stereochemical studies. VIII. Optically active $\alpha\alpha'$ -dibromoadipic acids, i, 1236.
- Holmberg, B.**, and *W. Rosén*, stereochemical studies. X. *l*-O-Menthylthiourethanes, i, 1291.
- Holmes, B. E.**, and *E. G. Holmes*, brain metabolism. I. Carbohydrate metabolism, i, 1001.
- Holmes, B. E.** See also *E. G. Holmes*.
- Holmes, E.** See *G. T. Morgan*.
- Holmes, E. G.**, and *B. E. Holmes*, brain metabolism. II. Carbohydrate metabolism, i, 1495.
- Holmes, E. G.** See also *B. E. Holmes*.
- Holmes, E. L.**, and *C. K. Ingold*, alternating effect in carbon chains. III. Directive efficiencies of oxygen and nitrogen atoms in aromatic substitution, i, 1142.
- Holmes, H. N.**, and *J. A. Anderson*, new type of silica gel, ii, 518.
- Holmes, H. N.**, and *H. A. Williams*, iodine as an emulsifying agent, ii, 531.
- polar emulsifying agents, ii, 1156.
- Holmes, L. H. A.**, and *E. E. Turner*, potassium antimonoxalate, ii, 1130.
- Holmes, R. M.**, effect of light on the thermoelectric power of selenium, ii, 811.
- Holmes, R. S.** See *W. O. Robinson*.
- Holmes, W. C.**, influence of constitutional variation on the absorption and stability to hydrogen ions of certain halogenated derivatives of fluorescein, i, 255.
- spectrophotometric identification of dyes. III. Basic violets of the triphenylmethane group, ii, 1212.
- Holmes, W. C.**, and *E. F. Snyder*, spectrophotometric determination of hydrogen-ion concentrations and of the apparent dissociation constants of indicators. II. Thymol-blue. III. Bromocresol-green, ii, 325.
- spectrophotometric determination of hydrogen-ion concentrations and of the apparent dissociation constants of indicators. IV. Sodium α -naphthol-2-sulphonate indophenol, ii, 999.
- Holmsen, J.** See *E. Langfeldt*.
- Holschneider, F.** See *H. Lecher*.
- Holt, L. E., jun.**, calcification. III. Equilibria concerned with calcification of bone, i, 1209.
- Holt, L. E., jun.**, *V. K. LaMer*, and *H. B. Chown*, calcification. I. Solubility product of secondary and tertiary calcium phosphate. II. Delayed equilibrium between the calcium phosphates and its biological significance, i, 1209.
- Holtmark, J.**, and *B. Trumpy*, broadening of spectral lines. III., ii, 338.
- Holtz, F.** [ultra-balance], ii, 1091.
- Holtz, F.**, and *W. H. F. Kuhlmann*, ultra-balance, ii, 319.
- Holtz, F.**, and *Helmut Müller*, basic constituents of the rye plant: the ergot question, i, 488.
- Holtz, F.**, and *F. Thielmann*, extractives of *Arbutia pustulosa*, i, 720.
- Holtz, F.** See also *D. Ackermann*.
- Holtzelaw, J. B.** See *C. Barkenbus*.
- Holverschelt, W.** See *W. Biltz*.
- Holweck, F.**, exact measurements of spectral frequencies in the region between light and X-rays (L_{III} -discontinuities of Cl, S, P, Si, Al), ii, 336.
- exact determination of characteristic atomic frequencies in the spectral region between visible light and X-rays, ii, 728.
- Holzlohner, E.**, action of Na- and Ca-ions on frog's heart, i, 1500.
- Honda, K.**, definitions of steel and cast iron, ii, 378.
- formation of martensite in carbon steels, ii, 972.
- Honda, K.**, and *T. Ishigaki*, law of depression of freezing points in metallic alloys, ii, 1050.
- Honda, K.**, and *Y. Okubo*, coefficients of thermal expansion for aluminium alloys and alloys of nickel-iron and cobalt-iron, ii, 104.
- Honeyman, A. J. K.** See *J. H. Andrew*.
- Honeywell, E. M.**, and *H. Steenbock*, synthesis of vitamin-C by germination, i, 751.
- Honnellaitre, A.**, certain organomolybdc complexes, i, 509.
- Honnellaitre, A.** See also *E. Dar-mois*.
- Honsig, E.** See *W. Fuchs*.
- Hooft, F. V.** See *C. B. van Niel*.
- Hooft, Van 't**, production and occurrence of acetylmethylcarbinol in vinegar, i, 772.
- Hooker, H. D.**, changes produced in apple trees by various types of pruning, i, 1367.
- Hoop, L. de**, and *J. A. van Laer*, diastatic breakdown of starch, i, 470.

- Huber, O.** See *K. Freudenberg*.
- Hudleston, L. J.** See *J. D. C. Anthony*.
- Hudson, C. S.**, relations between rotatory power and structure in the sugar group. VI. Rotatory powers of α - and β -forms of methyl-*D*-xyloside and of methyl-*L*-arabinoside, i, 232. relations between rotatory power and structure in the sugar group. VII. Methylglycosidic derivatives of the sugars, i, 233. relations between rotatory power and structure in the sugar group. VIII. Some terpene alcohol glycosides of glucose, glycuronic acid, maltose, and lactose, i, 514. relations between rotatory power and structure in the sugar group. IX. Rotation of the α -form of methylgentobioside, i, 636.
- Hudson, C. S.**, and *A. Kunz*, relations between rotatory power and structure in the sugar group. X. Chloro-, bromo-, and iodo-acetyl derivatives of lactose, i, 1043.
- Hudson, C. S.**, and *E. P. Phelps*, relations between rotatory power and structure in the sugar group. V. Chloro- and bromo-acetyl derivatives of arabinose; nomenclature of α - and β -forms in the sugar group; some derivatives of 1:6-bromoacetylglucose, -gentiobiose, and -maltose, i, 8.
- Hudson, J. C.**, precision X-ray spectrometers, ii, 17. the solubility of sulphur dioxide in water and in aqueous solutions of potassium chloride and sodium sulphate, ii, 765.
- Hübner, E.** See *V. Palladin*.
- Hübner, H. M.** See *A. Lottermoser*.
- Hueck, H.**, proteins of the blood. I, i, 1484.
- Hückel, E.**, theory of concentrated aqueous solutions of strong electrolytes, ii, 513. theory of membrane equilibria, ii, 528, 668.
- Hückel, E.** See also *R. Zsigmondy*.
- Hückel, W.**, stereoisomeric forms of decahydronaphthalene, i, 1254.
- Hückel, W.** [with *E. Brinkmann*, and *E. Goth*], stereochemistry of bicyclic ring-systems. I. Decahydronaphthalene and its derivatives, i, 258.
- Hückel, W.**, and *E. Goth*, transformation of stereoisomeric acids and their esters, i, 402.
- Hummelchen, W.**, and *H. Kapfen*, decomposition of neutral salts by colloids, i, 218.
- Hüttig, G. F.**, geometry of the coordination number. II., ii, 362. water-combination in colloids, ii, 516. migratory constituents in the crystal lattice, ii, 646.
- Hüttig, G. F.**, and *F. Brodkorb*, system, chromium-hydrogen, ii, 702.
- Hüttig, G. F.**, and *M. Keller*, contraction, refractivity, and absorption of light in solutions of lithium salts, ii, 963.
- Hüttig, G. F.**, and *A. Krajewski*, lithium. III. Lithium hydride, ii, 296.
- Hüttig, G. F.**, and *H. Kükenenthal*, quartz apparatus with filtering bottoms, ii, 998.
- Hüttig, G. F.**, and *M. Nette*, use of glass filters in qualitative analysis, ii, 431.
- Hüttig, G. F.**, and *O. Schliessmann*, lithium. V. The alkali polybromides and polychlorides, ii, 1181.
- Hugget, J. L.** See *W. F. Seyer*.
- Hughes, A. L.**, and *F. E. Poindexter*, substitute for a liquid air trap for mercury vapour in vacuum systems, ii, 818. potassium as a mercury-vapour trap, ii, 895.
- Hughes, T. P.** See *W. F. Petersen*.
- Hugounenq, E.**, and *J. Loiseleur*, constitution and mode of action of proteolytic enzymes, i, 1507.
- Hugounenq, L.**, *G. Florence*, and *E. Couture*, preparation and some properties of picrolonic acid, i, 435.
- Hugounenq, L.**, and *J. Loiseleur*, superposition of the phenomena of dissociation and selective adsorption in the case of proteolytic diastases, i, 1198.
- Hulbert, E. O.**, and *G. Breit*, momentum imparted to electrons by radiation, ii, 252.
- Hull, A. W.**, and *N. H. Williams*, determination of elementary charge *e* from measurements of shot-effect, ii, 253.
- Hulle, E. van.** See *G. Schroeter*.
- Hulthén, E.**, origin of the mercury band spectrum; a new band of mercury, ii, 11. band spectrum of mercury, ii, 470. relations between the band spectra of zinc, cadmium, and mercury and their atomic spectra, ii, 1113.
- Hulthén, E.**, and *G. Johansson*, second positive nitrogen bands, ii, 11.
- Humble, H.** See *J. E. Humphries*.

- Hume, E. M., and H. H. Smith**, effect of irradiation of the environment with ultra-violet light on the growth and calcification of rats fed on a diet deficient in fat-soluble vitamins; part played by irradiated sawdust, i, 211.
- Hume, J.**, hydrates of calcium carbonate, ii, 697.
- Humphries, J. E., and R. Evans**, bromination of acyl derivatives of phenylhydrazine; preparation of 2:4-dibromophenylhydrazine, i, 1339.
- Humphries, J. E., H. Humble, and R. Evans**, action of halogens on phenylhydrazones. II. Action of chlorine, i, 989.
- Humphreys, F. B.**, formation of acetaldehyde from glycerol by *Bacillus welchii*, i, 340.
- Humphreys, R. W.** See *J. Pryde*.
- Humphry, R. H.** See *E. Hatschek*.
- Hund, F.**, configuration of polyatomic polar molecules. II. Molecules consisting of a negative ion and hydrogen nuclei, ii, 479.
interpretation of complicated spectra particularly of the elements from scandium to nickel, ii, 912.
significance of the magnetism of the rare earths, ii, 1038.
explanation of complex spectra. II., ii, 1104.
isotropic ions, building of molecules and the crystal lattice, ii, 1132.
- Hunn, J. V.** See *G. G. Brown*.
- Hunnean, R. D.** See *R. T. Haslam*.
- Hunnius.** See *A. Densch*.
- Hunt, A. F., and E. E. Turner**, aromatic chlorovinylarsines, i, 843.
- Hunt, F. L.** See *V. P. Barton, and R. W. G. Wyckoff*.
- Hunt, J. K., and F. Daniels**, rate of decomposition of nitrogen pentoxide at low concentrations, ii, 801.
- Hunt, R., and R. R. Renshaw**, effects of arsonium, phosphonium, and sulphonium compounds on the autonomic nervous system, i, 861.
- Hunter, A., and J. A. Dauphinee**, approximative colorimetric method for the determination of urea, with an application to the detection and determination of arginase, i, 104.
distribution of arginase in fishes and other animals, i, 104.
indicator method for the determination of urea and arginase, ii, 247.
- Hunter, A., and R. G. Smith**, liberation of ammonia in tryptic digestion, i, 473.
- Hunter, A. S., and W. A. Patrick**, salvarsan. I. Determination of an isoelectric point, i, 1106.
- Hunter, G.**, diazo reaction in urine, i, 459.
carnosine of muscle and iminazole excretion in the urine, i, 459.
colour standards for use in the determination of glyoxalines, ii, 332.
- Hunter, G.** See also *F. M. R. Bulmer*.
- Hunter, R. F.**, physiological action of certain benzthiazoles and mercaptan derivatives, i, 702.
phenyldiethylthiocarbamide and the condensation of phenylthiocarbimide with diethylamine, i, 805.
bromination of 4'-amino-1-phenyl-5-methylbenzthiazole [dehydrothiolutidine] and of 1:1-bisbenzthiazole, i, 987.
chlorobenzthiazole dibromide, i, 987.
aminobenzthiazoles. I. 1-Anilino-benzthiazole and its tolyl homologues, i, 1335.
- Huppert, P.** See *R. Suhrmann*.
- Hurd, C. D., and H. J. Brownstein**, rearrangement of diphenyl-*p*-tolyl-acethydroxamic acid, i, 661.
preparation of hydroxylamine, ii, 587.
- Hurd, C. D., and W. H. Tallyn**, optimum conditions for the preparation of keten from acetone, i, 785.
ketenic decomposition of ketones; acetylacetone, diacetyl, and pinacol, i, 885.
- Husband, A. D.** See *F. C. Kelly*.
- Hussey, R. E.** See *J. B. Conant*.
- Huston, R. C.**, action of aromatic alcohols on aromatic compounds in the presence of aluminium chloride. III. Condensation of benzyl alcohol and phenol, i, 249.
- Huthsteiner, H.** See *O. S. Duffendaek*.
- Huttenlocher, R.** See *W. Küster*.
- Hyden, W. L.** See *W. A. Patrick*.
- Hyndman, O. R.** See *D. I. Macht*.

I.

- IBBS, T. L.**, thermal diffusion measurements, ii, 376.
- Ichihara, K.** See *Y. Kotake*.
- Ichikawa, J.**, condensation of vanillin with methyl ethyl ketone, i, 1156.
- Iitsuka, J.**, equilibrium diagram of the copper-zinc system, ii, 651.
- Ikeuti, H.**, β -rays produced in air by short-wave X-rays, ii, 460.
- Ilahi, B.** See *N. A. Yajnik*.
- Iliesco, (Miss) M.** See *S. Minovici*.
- Iljin, B.**, adsorption activity and surface energy of solids, ii, 856.
adsorption and surface energy at the boundary of different phases, ii, 958.

- Iljin, B.**, electrical theory of adsorption, ii, 958.
 adsorption forces and their electrical nature. II. The electrical moment of the adsorbed molecule and the superficial energy of the adsorbent, ii, 1149.
- Illeg, R.** See *H. Reihlen*.
- Illing, H.** See *P. Karrer*.
- Illjuvijeve, V.** See *V. Palladin*.
- Imas, R.** See *P. Thomas*.
- Imker, A.** See *R. Schenck*.
- Ingall, D. H.**, relationship between tensile strength, temperature, and cold-work in some pure metals and single solid solutions, ii, 190.
- Ingersoll, A. W.**, complete mutual resolution of inactive acids and bases, i, 814.
- Ingersoll, A. W.** See also *L. J. Bircher*.
- Ingersoll, L. R.**, and *S. S. de Vinney*, non-magnetic films of nickel, ii, 846.
- Ingold, C. K.**, formation of unsaturated and cyclic compounds from halogen open-chain derivatives. VI. Products derived from halogenated α -methylglutaric acids, i, 357.
 alternating effect in carbon chains. I. Directive influence of the nitroso group in aromatic substitution, i, 646.
 additive formation of four-membered rings. VII. Synthesis and division of some dimethylene-1:3-oxamines, i, 840.
- Ingold, C. K.**, and (*Mrs*) *E. H. Ingold*, alternating effect in carbon chains. II. Directing influence of the α -methoxyvinyl group in aromatic substitution, i, 657.
- Ingold, C. K.**, and *S. D. Weaver*, additive formation of four-membered rings. VI. Addition of azo compounds to ethylenes and some transformations of the dimethylene-1:2-dimine ring, i, 580.
- Ingold, C. K.** See also *J. P. C. Chandrasena, M. D. Farrow, F. R. Goss, J. P. Griffiths, and E. L. Holmes*.
- Ingold, (Mrs.) E. H.**, correlation of additive reactions with tautomeric change. IV. Effect of polar conditions on reversibility, i, 357.
 tautomerism of dyads. III. Effect of the triple linking on the reactivity of neighbouring atoms, i, 779.
- Ingold, (Mrs.) E. H.** See also *C. K. Ingold*.
- Invidiato, R.**, Sicilian eucalyptus oil, i, 688.
- Ionescu, A.**, and (*Mlle.*) *E. Spirescu*, comparison of certain chemical methods for the determination of dextrose, ii, 331.
- Ionescu, T. V.**, velocity of sound in liquids and its relation to the heat of vaporisation, ii, 644.
- Ipatiev, V.**, and *A. Andruschtschenko*, absorption of carbon dioxide by salt solutions under pressure, ii, 956.
- Ipatiev, V.**, and *N. Kijukvin*, polymerisation phenomena under the simultaneous action of aluminium oxide and metallic iron at high temperatures and pressures, i, 226.
 pyrogenic decomposition of naphthalene under the simultaneous action of oxides of aluminium and nickel, i, 241.
- Ipatiev, V.**, and *V. Verchovski*, solution of zinc in hydrochloric acid at high pressures, ii, 1069.
- Iredale, T.**, adsorption from the gas phase at a liquid-gas interface, ii, 508.
- Ireland, S. J.** See *F. D. Chattaway*.
- Ireton, H. J. C.**, extreme ultra-violet spectrum of germanium and scandium, ii, 453.
- Irvine, E.** See *V. H. Stott*.
- Irving, L.**, carbonic acid-carbonate equilibrium and other weak acids in sea-water, i, 1022.
- Irwin, M.**, accumulation of dye in *Nitella*, i, 1363.
- Isaac, S.**, and *E. Adler*, dihydroxyacetone in metabolism; theory of the action of insulin, i, 343.
- Isbekov, W.**, thermal analysis of the binary systems, aluminium bromide and various halides, ii, 417.
 decomposition potentials of solutions of metallic bromides in molten aluminium bromide, ii, 796.
- Isely, F. C.**, relation between the mechanical and piezo-electrical properties of a Rochelle salt crystal, ii, 23.
- Isgarischev, N.**, and *S. Berkmann*, effect of alternating current on polarisation during metal deposition, ii, 548.
- Isgarischev, N.**, and *A. Pomeranzeva*, velocity of the hydrogen ion in gels under the action of the electric current, ii, 300.
- Ishibashi, M.**, electrolytic reduction of oximes. II. γ -Oximinopropionic acid and α -oximinopropionic acid, i, 1382.
 electrolytic reduction of oximes. III. Benzildioxime, i, 1431.

Ishida, S. See *Y. Tanaka*.
Ishigaki, T. See *K. Honda*.
Ishikawa, S., condensation of nitriles with thioamides. IV. Thioanides with phenylimidoacyl chlorides, i, 917.
 condensation of nitriles with thioamides. V. Action of sulphur monochloride on thioamides, i, 1149.
Ishimasa, M. See *S. Komatsu*.
Ishiwara, F., bactericidal properties and chemical structure, i, 750.
Ishihara, T., equilibrium diagram of the copper-tin system, ii, 122.
 equilibrium diagram of the aluminium-zinc system, ii, 298, 786.
Iskyl, V., constitution of the silicates; chlorites, ii, 152.
Itallie, L. van, and A. J. Steenhauer, products of putrefaction in toxicological analysis, i, 719.
 microchemical reactions for tyramine and histamine, ii, 608.
Ito, T. See *R. W. Seuffert*.
Ivanov, A. See *J. Bredt*.
Ivanov, D., condensation of furfuraldehyde with aliphatic aldehydes, i, 421.
 preparation of organic acids by the Grignard reaction, i, 503.
Ivanov, N. N., cause of the varying urea content of fungi, i, 344.
 urea in the lower plants an analogue of asparagine, i, 344.
 excretion of urea by fungi, i, 746.
 decomposition products of the proteins, i, 1480.
Ives, H. E., photo-electric properties of thin films of alkali metals, ii, 344.
Ives, H. E., and A. L. Johnsrud, normal and selective photo-electric effects in the alkali metals and their alloys, ii, 344.
Ivy, H. C. See *E. I. McEnery*.
Iwase, K., equilibrium states of the ternary alloys. I., ii, 535.
Iwatsuru, R., influence of histamine and tyramine on the nitrogen metabolism of the rabbit, i, 1502.
 fats and lipoids in blood. II. Distribution of fats and lipoids in the blood of rabbits on a vitamin-B-free diet, i, 1515.
Iyengar, M. S. See *M. G. S. Rao*.
Iyer, M., and F. L. Usher, composition of liquid and vapour phases of glycerol-water mixtures, ii, 501.
Iyer, S. N., J. J. Sudborough, and P. R. Ayyar, argemone oil, i, 1128.
Izák Krizko, J. See *R. Vondráček*.

Izumi, S., metallic salts of simple nucleic acids [mononucleotides], i, 174.
 the carbohydrate group of glucoproteins, i, 847.

J.

Jabiczynski, K., dimensions of ions in aqueous solutions, ii, 33.
 velocity of coagulation of colloids of the second order, ii, 34.
 slow coagulation of colloids of the first order, ii, 35, 203.
Jabiczynski, K., and H. Lorentz-Zienkowska, velocity of coagulation of colloidal mixtures, ii, 666, 1060.
Jabiczynski, K., and A. Przedsiecka-Jedrzejowska, velocity of coagulation of antimony trisulphide, ii, 665, 1060.
Jabiczynski, K., W. Wieckowski, and (Frl.) A. Klein, reaction kinetics in a system consisting of two liquid phases, ii, 410.
Jablonski, A. See *S. Pienkovski*.
Jackson, L. C., paramagnetism and the electronic configuration of the atom, ii, 732.
 [magneton numbers of iron in some complex salts], ii, 944.
Jackson, R. W. See *W. C. Rose*.
Jackwirth, G. See *F. Sauerwald*.
Jacob, K. See *B. Neumann*.
Jacob, P. See *R. Kuhn*.
Jacobi, R. See *H. Wieland*.
Jacobs, M. H., hæmolytic action of ammonium salts, i, 1345.
Jacobs, W. A., saponins. I. Sapogenin from soapnuts, i, 947.
 saponins. II. Structure of hederagenin, i, 948.
 saponins. III. Sapogenin occurring in *Sapindus saponaria*, L., and *S. mukorossi utilis*, i, 1028.
Jacobs, W. A., and A. M. Collins, strophanthin. VI. Anhydrostrophanthidins and their behaviour on hydrogenation, i, 566.
 strophanthin. VII. The double bond of strophanthidin, i, 1082.
Jacobson, R. A., and R. Adams, polyhydroxymethylanthraquinones. IV. Condensation of opianic acid with substituted phenols; orientation in the preparation of anthraquinones, i, 272.
 trihydroxymethylanthraquinones. V. Synthesis of morindone, i, 273.
 polyhydroxy- and polyhydroxymethylanthraquinones. VI. Syntheses from opianic acid and phenols or cresols, i, 1076.

- Jacobucci, A.** See *C. F. Hickethier*.
Jacobus, W. See *A. Löwenbein*.
Jacoby, Margarete. See *Martin Jacoby*.
Jacoby, Martin, and Margarete Jacoby, action of sunlight on complement, i, 178.
Jacoby, Martin, and L. Rosenfeld, action of enzyme accelerators, i, 1010.
Jacob, N. See *A. Beretta*.
Jacques, H. See *J. M. Mullaly*.
Jäger, A. See *J. D'Ans*.
Jaeger, F. M., pseudo-symmetry of racemic potassium chlorosulphoacetate, ii, 948.
Jaeger, F. M., and D. W. Dijkstra, mass ratio of isotopes in chemical elements, ii, 83.
Jaeger, G. See *F. L. Hahn*.
Jaeger, W., and H. von Steinwehr, heats of combustion of normal substances, ii, 126.
Jaggi, W. See *P. Karrer*.
Jaenichen, E. See *F. Sauerwald*.
Jaenicke, J. See *F. Haber*.
Järvinen, K. K., separation of iron, chromium, aluminium, and phosphoric acid from zinc, nickel, cobalt, and manganese, and determination of the last four elements, ii, 602.
 molecular attraction and the equation of state, ii, 865.
Jaffé, G., influence of ionic diffusion on almost saturated currents, ii, 253.
Jahrstorper, M. See *W. Manchot*.
Jain, M. P. See *N. A. Yajnik*.
Jajnik. See *Yajnik*.
Jakób, W. F., precipitation of calcium oxalate in the presence of ammonium citrate, ii, 69.
 separation from calcium of magnesium, iron, aluminium, and phosphoric acid, ii, 1095.
Jakubsohn, S., and M. Rabinovitsch, electrical conductivity of solid crystal hydrates, ii, 847.
Jaloustre, L. See *P. Lemay, and A. Maubert*.
James, C. See *M. D. Williams*.
James, F. See *S. R. Carter*.
Vameson, A. Y. See *H. J. Lucas*.
Jamieson, J. S. See *J. Moir*.
Janczak, (Mlle.) M., preparation of neutral phosphites from the hydrogen esters, i, 1051.
Jander, G., and L. Brandt, amphoteric hydroxides, their alkaline solutions and alkali salts. III. Alkali antimonates from aqueous alkaline solutions, ii, 988.
Jander, G., and H. Schulz, application of the diffusion coefficient to the determination of the molecular size of heavy, amphoteric hydrated oxides in alkaline solution, ii, 528.
 amphoteric hydroxides. II. Tantallic acid and alkali tantalates, ii, 701.
Jander, G., E. Wendehorst, and B. Weber, determination of small quantities of magnesium as magnesium ammonium phosphate in presence of much aluminium, ii, 715.
Jander, W., behaviour of gold and platinum towards silicate and salt fusions, ii, 416.
Janet, (Mlle.) M. See *W. Mestrezat*.
Janicki, L., hydrogen Balmer series, ii, 449.
Jansen, W. H., calcium in man. II. Effect of different salts of calcium, i, 190.
 calcium in man. III. Calcium content of human blood under pathological conditions, i, 324.
Janssen, C., jun. See *L. Elion*.
Jansson, S., and H. Jost, re-synthesis of carbohydrates in the muscle of warm-blooded animals, i, 1354.
Jantzen, V. T. See *G. von Hevesy*.
Jarceva, A. G. See *S. S. Nametkin*.
Jaspers, M., action of organo-magnesium compounds on nitriles, i, 936.
Jauncey, G. E. M., Compton and Duane effects, ii, 368.
 quantum theory of the unmodified spectrum line in the Compton effect, ii, 368, 747.
 theory of the width of the modified spectrum lines in the Compton effect, ii, 483.
Jauncey, G. E. M., and O. K. DeFoe, theory of the number of β -rays associated with scattered X-rays, ii, 1128.
Jausseran, C. See *H. Buisson*.
Javillier, M., and H. Allaire, determination of nucleic [acid] phosphorus in animal tissues, i, 996.
Javillier, M., H. Allaire, and (Mlle.) M. Groc, new principle for testing organotherapeutic powders, ii, 1012.
Javillier, M., P. Baude, and S. Levy-Lajeunesse, attempts to identify vitamin-A; vitamin-A and phytol, i, 617.
 physiological determination of vitamin-A, i, 1364.
Jawetz, M. See *M. Kohn*.
Jeffery, F. H., electrolysis of solutions of potassium oxalate with a tin anode and an electrometric determination of the constitution of the complex anions formed, ii, 304.

- Jeffreys, H.**, rare gases of the atmosphere, ii, 83.
- Jelinek, H.** See *F. Jirsa*.
- Jelinek, J.** See *F. Jirsa*.
- Jellinek, K.**, equilibria in fused salts (reactions between alloys of alkali and alkaline-earth metals and their chlorides), ii, 1160.
- Jellinek, K.**, and *J. Czerwinski*, equilibria between sodium, alkaline-earth metals, and their chlorides in the fused state, ii, 123.
equilibrium between lithium, barium, and their chlorides in the molten state, ii, 124.
- Jellinek, K.**, and *J. Wolff*, equilibria in fused salts (reactions between molten alloys of the alkalis and alkaline-earths and their molten chlorides), ii, 974.
- Jellinek, K.**, and *J. Zakowski*, affinity of the metals for sulphur, ii, 401.
- Jendrassik, L.**, and *H. Tangl*, inhibition by atropine and the action of organic acids on the intestine, i, 1502.
- Jenkins, J. D.**, effect of various factors upon the velocity of crystallisation of substances from solution, ii, 559.
- Jenkins, R. L.** See *R. Adams*.
- Jenkinson, H.** See *F. A. Mason*.
- Jensen, A. L.** See *E. Biilmann*.
- Jensen, H.** See *A. Windaus*.
- Jensen, H. H.**, and *A. D. Hirschfelder*, local anæsthetic and anti-spasmodic actions of some ethers and esters of saligenin, i, 467.
- Jensen, P. B.**, kinetics of zymase fermentation, i, 337.
- Jensen-Carlen, K.** See *E. M. P. Widmark*.
- Jernakoff, C.** See *W. Biedermann*.
- Jerome, W.**, and *F. Pepin*, volumetric determination of small quantities of ethyl alcohol, ii, 905.
- Jesse, W. P.**, relative ionisation in different gases for slow-moving electrons, ii, 919.
- Jessop, G.** See *N. K. Adam*, and *F. G. Tryhorn*.
- Jevons, W.** See *W. E. Curtis*.
- Jilek, A.**, and *J. Lukas*, rapid separation of tin and tungsten by electroanalysis, ii, 242.
gravimetric determination of copper and its separation from cadmium and zinc, ii, 903.
- Jilek, A.** See also *J. Lukas*.
- Jinks, J. R. A.** See *F. Challenger*.
- Jirsa, F.**, theory of electrolytic oxygen evolution with anodic polarisation. II. Palladium in alkaline solution, ii, 45.
- Jirsa, F.**, higher oxides of silver. I. Ag_2O_3 , ii, 314.
higher oxides of silver. II. Ag_2O_2 , ii, 1162.
- Jirsa, F.** [with *J. Jelinek*], higher oxides of silver. I. Ag_2O_3 , ii, 1182.
- Jirsa, F.**, and *H. Jelinek*, anodic oxidation of gold. III., ii, 54.
- Jirsa, F.**, and *K. Loris*, theory of electrolytic oxygen evolution with anodic polarisation. I. Magnesium, cadmium, zinc, and mercury electrodes in alkaline solutions, ii, 45.
- Jirů, P.** See *E. Votoček*.
- Joachimoglu, G.**, action of narcotics of the aliphatic series on the smooth musculature of the leech, i, 735.
- Joachimoglu, G.**, and *N. Klissianis*, antiseptic action of mercury compounds, i, 46.
- Joachimoglu, G.** See also *W. Hellenbrand*, and *F. Paneth*.
- Job, A.**, *R. Reich*, and *P. Vergnaud*, existence of magnesium-arsines and some of their reactions, i, 173.
- Job, P.**, electrometric study of hydrolysis, ii, 117.
spectrographic study of the formation of complexes in aqueous solution, ii, 389.
spectrographic study of the iodo-cadmium complex, ii, 471.
spectrographic study of the formation of mercury complexes, ii, 887.
- Jobst, G.**, theory of the colour of colloidal metal suspensions, ii, 777.
- Jodidi, S. L.**, cereals. III. Polypeptides and amino-acids in the ungerminated maize kernel, i, 1027.
- Jodidi, S. L.**, and *J. G. Wangler*, cereals. IV. Amino-acids and polypeptides in the ungerminated rye kernel, i, 1224.
- Joël, E.** See *R. Zsigmondy*.
- Jörg, H.** See *E. Fromm*.
- Joffé, A.**, and *M. Lewitsky*, strength and elastic limits of rock-salt, ii, 370.
- Joffe, J. S.**, and *H. C. McLean*, colloidal behaviour of soils and soil fertility. I. Suction force of soils as an index of their colloidal content, i, 1372.
- Jofinov, W.**, burette for gas analysis in electrochemical processes, ii, 898.
- Johansson, C. H.**, thermal expansion of binary mixed crystal systems, ii, 487.
- Johansson, C. H.** See also *G. Borelius*.
- Johansson, G.** See *E. Hulthén*.
- Johansson, R.** See *H. von Euler*.

- Johlin, J. M.**, surface concentration of gelatin at a liquid-gas interface as indicated by the change in surface tension, ii, 388.
 surface concentration of casein, crystalline egg-albumin, and crystalline hæmoglobin, ii, 857.
 surface concentration of sodium oleate and of colloidal sulphur, ii, 1054.
- John, H.**, administration of 1-nitro-anthraquinone, i, 465.
 sensitivity to light of tryptaflavine, i, 465.
 chemical action of light, i, 1258.
 quinoline derivatives. I. Synthesis of 2-phenyl-4-aminomethylquinoline, i, 1317.
 relations between constitution and tinctorial properties, i, 1336.
- John, H.**, and **V. Fischl**, laboratory apparatus, ii, 897.
- John, H.**, and **F. Noziczka**, quinoline derivatives. I. Synthesis of substituted 2-phenyl-4-methylquinolines, i, 1451.
- John, H.**, and **G. Weber**, quinoline derivatives. II. Substituted 2-phenyl-4-methylquinolines, i, 1452.
- John, H. J.**, glycolysis, i, 1344.
- Johnsen, S.** See **H. Goldschmidt**.
- Johnson, A. H.** See **J. A. Harris**.
- Johnson, E. B.**, and **L. M. Dennis**, germanium. X. Determination of germanium, ii, 442.
- Johnson, E. S.**, growth of potato plants in sand cultures treated with the "six types" of nutrient solutions, i, 1367.
- Johnson, F. M. G.** See **L. A. Munro**, and **E. W. R. Steacie**.
- Johnson, J. M.** See **C. Voegtlin**.
- Johnson, J. R.** See **R. Adams**.
- Johnson, M. C.**, experimental control of electrically broadened spectral lines, ii, 614.
- Johnson, M. C.** See also **G. L. Clark**.
- Johnson, N. G.** See **S. G. Powell**.
- Johnson, R. C.**, effect of argon on the first positive band spectrum of nitrogen, ii, 11.
 further spectra associated with carbon, ii, 723.
 band spectra associated with carbon, ii, 1024.
- Johnson, T. B.**, and **R. D. Coghill**, distribution of nitrogen in protein fraction of tubercle bacilli, i, 748.
- Johnson, T. B.**, and **P. G. Daschavsky**, proteins. VIII. Destructive distillation of silk fibroin, i, 176.
 amines. X. Formation of tyramine by decarboxylation of tyrosine from silk, i, 540.
- Johnson, T. B.**, and **A. G. Renfrew**, hydantoin. XLIII. Synthesis of the polypeptide-hydantoin, "hydantoin-3-acetic acid," i, 583.
- Johnson, T. B.** See also **R. D. Coghill**, **D. Davidson**, **C. Roberts**, **E. M. Shelton**, and **M. A. Soderman**.
- Johnson, W. C.** See **C. A. Kraus**.
- Johnsrud, A. L.** See **H. E. Ives**.
- Johnston, J.**, solubility relations of isomeric organic compounds. I., ii, 852.
- Johnston, J.**, and **A. C. Walker**, preparation and analyses of constant mixtures of air and carbon dioxide, ii, 851.
- Johnston, J.** See also **D. H. Andrews**, and **A. W. Francis**.
- Johnston, J. H. S.**, and **G. H. Peard**, surface tension of gelatin solutions, ii, 659.
- Joithe, A.** See **K. W. Rosenmund**.
- Jolibois, P.**, methods of studying the chemical effects of electric sparks on gases at low pressures, ii, 1194.
- Jolibois, P.**, and **R. Bossuet**, spectrographic detection of traces of gold, ii, 1208.
- Jolibois, P.**, and **J. Maze-Sencier**, adsorption phenomena exhibited by tricalcium phosphate, ii, 770.
- Jolowicz, R. V.**, experiments on the absorption of the Balmer lines in hydrogen, ii, 1097.
- Jones, A. J.**, factors affecting the physical condition of bismuth carbonate, ii, 994.
- Jones, A. O.**, gas absorption pipette, ii, 431.
- Jones, C. M.** See **M. Delaville**.
- Jones, D. B.**, and **F. A. Gsonka**, proteins of the cotton seed, i, 1225.
- Jones, D. B.**, and **C. E. F. Gersdorff**, proteins of wheat bran. II. Comparison of bran proteins with those of the endosperm and embryo, i, 1027.
- Jones, D. B.**, **C. E. F. Gersdorff**, and **O. Moeller**, tryptophan and cystine content of various proteins, i, 98.
 proteins of bark of locust tree (*Robinia pseudacacia*). I. Enzymes associated with the proteins; composition and properties of the albumin, i, 1225.
 nitrogen distribution and percentages of some amino-acids in the muscle of the shrimp, *Penaeus setiferus* (L.), i, 1348.
- Jones, D. C.**, adsorption from solution by silica in varying degrees of dispersivity, ii, 382.
 upper limit for the thickness of the adsorption layer on silica, ii, 509.

- Jones, D. C.** See also *W. A. Patrick.*
Jones, E. G. See *J. C. Russel.*
Jones, E. R., and C. R. Bury, cryoscopic measurements with benzene, ii, 1040.
Jones, H. A. See *I. Langmuir.*
Jones, I., condensation nuclei produced by the illumination of air-halogen mixtures, ii, 984.
Jones, J. A. See *R. H. Greaves.*
Jones, J. E., determination of molecular fields. III. From crystal measurements and kinetic theory data, ii, 16.
 determination of molecular fields. I. Viscosity, ii, 91.
 determination of molecular fields. II. Gaseous equations of state, ii, 92.
 atomic fields of helium and neon, ii, 253.
Jones, J. H., and J. C. Boyce, constants of the Rydberg-Ritz equation, ii, 2.
Jones, John Henry. See *J. S. Thomas.*
Jones, J. I. M., and W. Kilby, identification of vat dyes on cotton, ii, 608.
Jones, J. O. See *G. W. Robinson.*
Jones, L. W., and D. H. Powers, new hydroxamic acids of hydroxy- and alkoxy-fatty acids, i, 13.
Jones, L. W., and H. F. Whalen, action of acid chlorides on trimethylamine, i, 801.
Jones, L. W. See also *H. F. Whalen.*
Jones, R. C. See *H. G. Miller.*
Jones, R. L., and F. R. Pember, fertiliser nutrients required by barley, wheat, and oats, as shown by both soil and water cultures, i, 1030.
Jones, R. M. See *W. H. Ross.*
Jones, T. J., electrical resistance of mercury in magnetic fields, ii, 754.
Jones, W., and M. E. Perkins, occurrence of plant nucleotides in animal tissues, i, 182.
 nitrogenous groups of plant nucleic acid, i, 487.
Jones, W. I., H. McCombie, and H. A. Scarborough, velocity of reaction in mixed solvents. VII. Influence of the base on the velocity of saponification of esters in methyl alcohol mixtures, ii, 137.
Jones, W. J. See *J. E. Myers.*
Jones, W. N., polarised light and starch grains, i, 1212.
Jonesco, S., action of hydrochloric acid and sodium on the flavone extracted from red leaves of *Prunus pissardi*, i, 824.
 action of sodium and mineral and organic acids on certain flavones, i, 825.
Jonescu, M., additive character of heterogeneous conjugated systems, i, 1153.
Jongh, S. E. de, and J. Planelles, determination of small amounts of glycogen in solution, i, 325.
Joos, B. See *P. Karrer.*
Joos, G., regularity in the fine structure of spectral lines, ii, 612.
 diamagnetism and the size of ions, ii, 736.
Jordan, G. See *K. W. Rosenmund.*
Jordan, O. See *K. von Auwers.*
Jordan, P., absorption of excited neon, ii, 337.
 theory of atomic structure, ii, 926.
Jørgensen, G., determination of phosphoric acid as magnesium ammonium phosphate, ii, 824.
Jorissen, W. P., and J. C. Meuwissen, influence of some non-inflammable vapours of organic liquids on the limits of inflammability of methane-air mixtures. II., ii, 53.
 influence of some non-inflammable vapours of organic liquids on the limits of inflammability of mixtures of inflammable gases and air. III., ii, 307.
Jorissen, W. P., and B. L. Ongkiehong, influence of non-inflammable vapours of organic liquids on the limits of inflammability of mixtures of inflammable gases and air. V. Influence of trichloroethylene on the limits of inflammability of hydrogen-air mixtures, ii, 875.
Jorissen, W. P., and C. van den Pol, activation of oxygen in the slow oxidation of sodium sulphite, ii, 52.
 induced oxidation, ii, 879.
Jorissen, W. P., and J. H. A. P. van der Valk, influence of non-inflammable vapours of organic liquids on the limits of inflammability of mixtures of inflammable gases and air. IV. Influence of dichloro- and trichloroethylene on the limits of inflammability of carbon monoxide-air mixtures, ii, 874.
Jorpes, E., nucleic acid of pancreas, i, 182.
Joseph, A. F., clays as soil colloids, i, 1228.
 action of silica on electrolytes, ii, 383.
Joseph, A. F., F. J. Martin, and J. S. Hancock, electrical determination of soil alkali, i, 222.
Josephson, K., enzymic hydrolysis of glucosides; β -glucosidase of emulsin, i, 1359.
 enzymic synthesis of glucosides; β -glucosidase of emulsin, i, 1360.

- Josephson, K.** See also *H. von Euler*.
Joshi, S. S., viscosity of reversible emulsions, ii, 776.
Joshi, S. S. See also *S. M. Sané*.
Jost, H. See *S. Jansson*, and *F. Knoop*.
Jouguet, E., comparison of the theory of explosion waves with recent experiments, ii, 1169.
Jouniaux, A., variation of the molecular weight of mercury with temperature, ii, 23.
 variation of the molecular weights of sodium, potassium, and tellurium with temperature, ii, 187.
 variation of the molecular condensation of tin with temperature, ii, 489.
 extension of Trouton's law to the fusion of metals, ii, 645.
Juday, C. See *B. P. Domogalla*.
Jünger, A. See *B. Helferich*.
Jüptner, (Baron), kinetics of reactions, ii, 552.
Julien, A. P., electrical conductance of selenium oxychloride solutions, ii, 872.
Junk, D. See *Erich Müller*.
Jung, G. See *A. Coehn*.
Jung, H., X-ray researches on the dehydration products of gypsum, ii, 367.
Jung, H. See also *G. Linck*, and *H. Wieland*.
Jungck, G. See *B. Emmert*.
Jungermann, C. See *T. Sabalitschka*.
Junger, O. See *E. Koenigs*.
Juritz, C. F., active principles of South African plants, i, 761.
Justh, R. See *W. Traube*.
- K.**
- Kablukov, A.**, and *V. T. Malischeva*, volumetric measurement of the mutual solubility of liquids; mutual solubility of the systems, ethyl ether-water and isoamyl alcohol-water, ii, 768.
Kadlcova, (Miss) H. See *A. Simek*.
Kab, G., influence of gas content on catalysis with platinum, ii, 564.
Kägi, H. See *M. Hartmann*.
Källner, S. See *F. Arndt*.
Kämmerer, H., and *A. Schaulin*, clinical colorimetric determination of hæmoglobin, i, 851.
Käppler, G. See *P. Weigert*.
Kafuku, K., formation of safroengenol [3-hydroxy-4-ethoxyallylbenzene] and isosafroengenol [3-hydroxy-4-ethoxypropenylbenzene] from safrole and isosafrole, i, 1413.
Kahil, A. I. M., and *M. Nierenstein*, chroman series, i, 52.
Kahlenberg, H. H., boron and boron suboxide, ii, 425.
Kahlenberg, L., passage of boric acid through the skin by osmosis, i, 101.
Kahler, H., band spectra of crystals and complex gases, ii, 626.
Kahlert, M. See *G. Embden*.
Kahn, M., and *R. S. Postmontier*, non-protein sulphur of the blood, i, 999.
Kahn, P. See *A. Abraham*.
Kaho, H., influence of alkaline-earth salts on the heat coagulation of plant plasma. VI, i, 217.
Kahre, H. See *H. Thoms*.
Kaigorodov, A. See *M. Vrevski*.
Kailan, A., and *R. Obogi*, purification of glycerol from volatile fatty acids and their esters, i, 501.
 velocity of esterification of *n*-butyric acid in glycerol, ii, 49.
Kailan, A., and *H. Raupenstrauch*, esterification of aliphatic acids in glycerol, i, 880.
Kaiser, W. See *J. von Braun*.
Kalandyk, S., conductivity of salt vapours in the chlorhydrogen flame, ii, 208.
Kalb, L., and *E. Berrer*, indigotin group. V. 5:7:5':7'-Tetraiodoindigotin and related substances, i, 160.
Kalb, L., and *L. Vogel*, indigotin group. VI. 4:4'-Dichloro-5:7:5':7'-diiodoindigotin, 5:6:7:5':6':7'-hexaiodoindigotin, and related substances, i, 161.
Kalekbrenner, E. See *P. Pfeiffer*.
Kalf, J., and *R. Robinson*, synthesis of myricetin and of a galangin monomethyl ether occurring in galanga root, i, 423.
 synthesis of datiscetin, i, 1302.
Kalje. See *G. Povarnin*.
Kall, G. A. See *H. Reihlen*.
Kalle, K. See *H. Schmaifuss*.
Kalle & Co., preparation of a reduction product of anhydrolupinine, i, 294.
 preparation of aldehydes and ketones of the pyrrole series, i, 297.
 preparation of perylenetetracarboxylic acid and its derivatives, i, 406.
 monomide of perylenetetracarboxylic acid and its derivatives, i, 1277.
 vat dyes, i, 1334.
Kallmann, O. See *B. Bleyer*.
Kalushski, A. A., sulphofication in soils, i, 492.
 sulphur as an accessory fertiliser, i, 492.
 effect of sulphur on saline soils, i, 624.

- Kameyama, N.**, ionic equilibria across semi-permeable membranes, ii, 1062.
- Kammer, G. D.**, and **A. Silverman**, ionium. I. Recovery of ionium from carnotite. II. Adsorption of ionium-thorium by barium sulphate. III. Ionium-thorium ratio in carnotite, ii, 1186.
- Kammer, G. D.** See also **C. H. Viol**.
- Kamura, H.**, reduction of ferric oxide and iron ores by hydrogen, ii, 981.
- Kanao, S.** See **H. Leuchs**.
- Kaneko, T.**, influence of magnesium on intraocular pressure, i, 333.
- Kanevskaja, S. I.**, extraction of opium alkaloids, i, 153.
- Kann, E.** See **M. Bergmann**.
- Kannenstine, F. M.**, life of metastable helium, ii, 171.
- Kanô, N.**, determination of cyanides and the use of benzene as an indicator in iodometry, ii, 1010.
- Kao, C. H.** See **V. Lenher**.
- Kapaun, A.** See **R. Kremann**.
- Kapeller, R.** See **E. Fromm**.
- Kapfhammer, J.**, creatinine, i, 797.
- Kapitza, P.**, and **H. W. B. Skinner**, Zeeman effect in strong magnetic fields, ii, 918.
- Kaplansky, S.**, extractives of the lungs, i, 97.
- Kapp, J.** See **V. Vesely**.
- Kappen, H.**, name and significance of soil acidity, i, 221.
investigation of soil acidity by means of pot experiments, i, 874.
- Kappen, H.**, and **M. Lukacs**, physiological reactions of manuring salts, i, 1523.
- Kappen, H.** See also **W. Hümmelchen**.
- Kap-Soo-Lee**, power of adsorption and detoxication of various charcoals, i, 101.
- Kapuscinski, W.**, fluorescence of cadmium vapour, ii, 838.
- Kar, K. C.**, kinetic theory of compressibility of solutions and binary liquid mixtures, ii, 970.
- Kar, S. C.**, statistical basis of Volmer's equation of state for adsorbed substances, and the concentration formula, ii, 1045.
- Kara-Michailova, E.**, quantitative optical method for differentiating between α - and H-particles, ii, 621.
- Karandéev, V.**, crystalline form and optical properties of cadynylene-sulphochloride, i, 1164.
- Karantassis, T.**, preparation of mixed iodides and sulphides, ii, 993.
preparation of arsenic di-iodide, ii, 994.
- Karantassis, T.** See also **V. Auger**.
- Karfiol, (Mlle.) H.**, synthetic potassium and sodium chromosilicates, ii, 1087.
- Karlsson, K. G.**, velocity of decomposition of esters and the relation to the hydrogen-ion concentration, ii, 877.
- Karlsson, S.** See **H. von Euler**.
- Karpfen, O.** See **S. Fränkel**.
- Karr, W. G.**, determination of blood urea-nitrogen, i, 323.
- Karrer, E.** See **H. C. Stevens**.
- Karrer, P.**, reserve cellulose and cellulose, i, 118.
isolichenin and the hydrolysis of starch, i, 1370.
- Karrer, P., G. H. Diechmann**, and **W. T. Haebler**, preparation and reactions of oximinooacetanilides, i, 243.
- Karrer, P.**, and **C. Gränacher**, reduction of dialkylxydihydropyrazines, i, 302.
- Karrer, P.**, and **H. Illing**, polysaccharides. XXX. and XXXI. Enzymic decomposition of cellulose, i, 741, 1029.
- Karrer, P., W. Jäggi**, and **T. Takahashi**, configuration of naturally-occurring *l*-leucine, i, 1046.
- Karrer, P.**, and **B. Joos**, polysaccharides. XXX. *iso*Lichenin, i, 1028.
- Karrer, P.**, and **W. Klarer**, degradation of *l*- β -hydroxybutyric acid, i, 1036.
- Karrer, P.**, and **H. Lier**, polysaccharides. XXXIII. New sugar, lichotriose, from lichenin, i, 793.
- Karrer, P., E. Miyamichi, H. C. Storm**, and **R. Widmer**, anhydrides of acyl-amino-acids, i, 594.
- Karrer, P., O. Schnider**, and **A. P. Smirnov**, polysaccharides. XXIX. Chitin (II) and the configuration of glucosamine, i, 418.
- Karrer, P.**, and **M. Staub**, gentiobiase, i, 336.
- Karrer, P.**, and **N. Takashima**, constitution and molecular magnitude of the hydroxy-camphors, i, 940.
- Karrer, P., F. Weber**, and **J. van Slooten**, toxins. II. Crotin, i, 1226.
- Karrer, P.**, and **R. Widmer**, amino-acids; action of diazomethane on hippuryl chloride, i, 593.
configuration of nicotine; optically active hygrinic acid, i, 1084.
- Karrer, P., R. Widmer**, and **P. Riso**, constitution and configuration of quinic acid, i, 673.
- Karrer, S.**, phenomena in the electric arc process of nitrogen fixation, ii, 987.
- Karssen, A.** See **H. Gerding**, and **N. H. Kolkmeijer**.

- Karvé, D. D.**, thermochemical investigations on the constitution of acids in solution, ii, 633.
acid nature of some derivatives of sulphur, selenium, and tellurium, ii, 1188.
- Karwacki, L.**, action *in vitro* of certain chemical substances on the development of *Bacillus tuberculosis*, i, 1015.
- Karwat, E.** See *A. Eucken*.
- Kasakevitch, P. P.**, vapour pressure-water content diagram and adsorptive power of aniline-black, ii, 287.
- Kase, T.**, equilibrium diagram of the iron-carbon-nickel system, ii, 973.
- Kashima, K.**, synthesis of *N:N'*-dimethylenesulphonates of *o*-, *m*-, and *p*-diaminoarsenobenzene, i, 1195.
- Kassner, G.**, material basis of the "nitroxan" process for the catalytic oxidation of ammonia to nitric acid, ii, 413.
- Kaston, E.** See *H. Pringsheim*.
- Kato, S.**, and *O. Shinoda*, spontaneous decomposition of lecithin, i, 773.
- Katz, J. R.**, Röntgen-spectrographic phenomena in the swelling of cellulose in various alkali hydroxide solutions, i, 639.
Röntgen-spectrographic observations, i, 640.
cause of the characteristic extensibility of caoutchouc; alteration of X-ray spectrum of caoutchouc on extension, ii, 667.
application of X-ray methods to the problem of imbibition, ii, 771.
cause of characteristic extensibility of caoutchouc. II. Joule effect and formation during stretching of a three-dimensional structure, ii, 969.
- Katz, J. R.**, and *H. Mark*, Röntgen diagram of hydrated cellulose and its behaviour in reversion treatments, i, 640.
alteration in the fibre X-ray spectrogram of cellulose on swelling in concentrated aqueous solutions, ii, 660.
nature of swelling in substances giving a Debye-Scherrer diagram, ii, 666.
- Kaufmann, E.** See *L. Beltz*.
- Kaufmann, H. P.**, and *E. Hansen-Schmidt*, bromometric investigations, ii, 554.
- Kaufmann, H. P.**, and *F. Kögler*, preparation of thiocyanogen from thiocyanic acid, i, 1252.
- Kaufmann, H. P.**, and *J. Liepe*, keto-enolic tautomerism. V. Desmotropic γ -methylacetylacetones, i, 1241.
- Kaufmann, H. P.**, and *E. Richter*, keto-enolic tautomerism. IV. Ferric chloride reaction and bromine addition of enols, i, 231.
- Kaufmann, H. P.**, and *E. Rossbach*, substituted salicylic acids. V. Substituted salicylic phthalidylidene ether esters, i, 1273.
- Kaufmann, M.** See *A. Kurtenacker*.
- Kaul, L.**, decomposition of mercury atoms, ii, 177.
- Kautsky, H.**, chemiluminescence, ii, 1026.
- Kautsky, H.**, and *G. Herzberg*, permutoid structure, ii, 941.
- Kautsky, H.**, and *A. Thiele*, reaction of siloxen with halogen compounds, ii, 698.
- Kautsky, R.**, *F. Leineweber* and *L. W. Famulener*, nitrogen content in volumetrically standardised bacterial vaccines, i, 1511.
- Kautter, T.** See *A. Gutbier*.
- Kawakami, K.** See *K. Takahashi*.
- Kay, G. F.** See *J. W. Bain*.
- Kay, H. D.**, phosphorus content of the blood of ruminants, i, 994.
phosphorus compounds of milk. I. The presence in milk of organic acid-soluble phosphorus compounds, i, 998.
- Kaye, M.**, behaviour of a substance giving the nitroprusside reaction in skin and in hair, i, 180.
- Kayser, C.** See *E. Le Breton*.
- Kayser, E.**, and *H. Delaval*, radioactivity, nitrogen-fixing bacteria, and alcoholic yeasts, i, 1118.
- Kaziro, K.**, decomposition of cholic acid by *Bacillus coli*, i, 1363.
- Keen, B. A.** See *A. N. Puri*.
- Keen, R. H.** See *R. T. Haslam*.
- Keenan, G. L.**, optical properties of amino-acids, ii, 94.
- Keenan, G. L.**, and *R. M. Hann*, optical properties of coniine hydrochloride, i, 1093.
- Keenen, F. G.**, *L. W. Prine*, and *W. C. Ebaugh*, combustion of carbon. II., ii, 987.
- Keeser, R.**, action of undissociated drugs, i, 101.
cholesterol and its esters. I. and II., ii, 290, 661.
- Keeson, W. H.** See *J. de Smedt*, and *L. Vegard*.
- Kehrmann, F.**, constitution and colour. X. Constitution of coloured derivatives of triphenylmethane, i, 435.
constitution and colour. XI. Colour variations shown by acidic organic substances when forming salts with bases, i, 435.

- Kehrmann, F.**, and **C. Bener**, phenyl and halogen derivatives of fluo-flavine, i, 443.
 synthesis of oxygen analogues of fluo-flavine, i, 443.
- Kehrmann, F.**, and **F. Cherpillod**, syntheses in the quinoneimide dye group. V. The use of hydroxy-*p*-benzoquinone, i, 302.
- Kehrmann, F.**, and **E. Falke**, syntheses in the quinoneimide dye group. VI. Certain *aposafranine* analogues of stilbazonium series, i, 303.
 oxonium perbromides, i, 351.
- Kehrmann, F.**, and **E. Haenny**, syntheses in the quinoneimide dye group. XI. Derivatives of phenazine, i, 1330.
- Kehrmann, F.**, and **E. Hohn**, 4-acet-amido-*o*-benzoquinone and some of its derivatives, i, 560.
- Kehrmann, F.**, and **L. Listwa**, syntheses in the quinoneimine dye group. VIII. The eighteenth isomeride of rosinduline, i, 1332.
- Kehrmann, F.**, and **P. Prunier**, syntheses in the quinoneimide dye group. VII. 1-Aminophenazine, i, 304.
- Kehrmann, F.**, and **I. Safar**, syntheses in the quinoneimine dye group. X. Aminoazines derived from naphthalene, i, 1331.
- Kehrmann, F.**, and **M. Sandoz**, determination of the constitutional formulæ of colouring matters from their absorption spectra. VI., i, 983.
- Kehrmann, F.**, and **J. A. Schedler**, fluorindines and fluorindinium salts, i, 441.
 derivatives of triphenazineoxazine and triphenidioxazine, i, 444.
- Kehrmann, F.**, and **L. Stanoyévitch**, monophenyltetra-aminobenzene and some of its derivatives, i, 1331.
 syntheses in the quinoneimine dye group. IX. Total synthesis of induline-6B, i, 1334.
- Kehrmann, F.**, and **J. Tschui**, carbazones [5:5-diphenyldihydroacridones]. IV. Coloured derivatives of tetraphenylmethane, i, 430.
 diphenylmethylcarbazine [diphenylmethylidihydroacridine] and some nitro-derivatives. V. Coloured derivatives of tetraphenylmethane, i, 431.
- Kehrmann, F.**, and **G. Wild**, condensation of methylphenoxazine-*o*-quinone with *o*-aminophenol and alkylated *o*-diamines, i, 444.
- Keilin, D.**, cytochrome, a respiratory pigment common to animals, yeast, and higher plants, i, 1112.
- Keller, M.** See **G. F. Hüttig**.
- Keller, O.** [with **Smechel**], hellebore group. V., i, 830.
- Keller, O.**, and **X. Bernhard**, alkaloids of *ipecacuanha* [*Uragoga ipecacuanha*]. IV., i, 1086.
- Keller, R.** See **J. Gicklhorn**.
- Kellermann, K.** See **L. Birckenbach**.
- Kelley, K. K.** See **G. S. Parkes**.
- Kelly, C. I.** See **R. Forsyth**.
- Kelly, F. C.**, influence of small quantities of potassium iodide on the assimilation of nitrogen, phosphorus, and calcium in the growing pig, i, 1210.
- Kelly, F. C.**, and **A. D. Husband**, determination of minute quantities of iodine in biological material, i, 183.
- Kelly, M. A.** See **L. A. Pinck**.
- Kelly, M. W.** See **A. W. Thomas**.
- Kelp, I.** See **J. Gröb**.
- Kemble, E. C.**, application of the correspondence principle to degenerate systems and the relative intensities of band lines, ii, 178.
- Kémeri, D.**, new porphyrin-like constituent of normal human faeces, i, 188.
- Kemp, M.**, oil of [Jamaica] pimenta leaves, i, 565.
- Kemp, M.** See also **H. Thoms**.
- Kendall, F. E.** See **C. S. Marvel**.
- Kendall, J.**, and **J. E. Booge**, stability of additive compounds between esters and acids, ii, 972.
- Kendall, J.**, and **B. L. Clarke**, separation of rare earths by the ionic migration method, ii, 977.
- Kendall, J.**, and **C. V. King**, additive compounds in the ternary system, ester-acid-water, ii, 972.
- Kendall, J.**, and **C. H. Sloan**, solubility of slightly soluble chlorides in concentrated chloride solutions, ii, 1052.
- Kendall, J.**, and **J. F. White**, separation of isotopes by the ionic migration method, ii, 83.
- Kennard, E. H.**, cause of surface tension, ii, 1046, 1148.
- Kennedy, W. P.**, influence of blood-serum and of sugars on hæmolysis, i, 717.
- Kenrick, F. B.**, **C. S. Gilbert**, and **K. L. Wismer**, superheating of liquids, ii, 99.
- Kenrick, F. B.**, **K. L. Wismer**, and **K. S. Wyatt**, supersaturation of gases in liquids, ii, 105.
- Kenyon, J.**, **H. Phillips**, and **H. G. Turley**, dependence of rotatory power on chemical constitution. XXIV. Further experiments on the Walden inversion, i, 507.

- Kenyon, J.**, and *H. E. M. Priston*, alcohols of the hydroaromatic and terpene series. IV. α - and β -Fenchyl alcohols and derived esters, i, 941.
- Kenyon, J.**, and *D. R. Snellgrove*, dependence of rotatory power on chemical constitution. XXVI. Four alcohols containing the vinyl group and some esters derived therefrom, i, 771.
- Kenyon, J.** See also *A. T. Fuller*, and *L. F. Hewitt*.
- Kepianka, E.**, and *L. Marchlewski*, absorption of [ultra]-violet light by organic substances, ii, 179.
- Kerb, J.**, and *E. Kerb-Etzdorf*, glucosans, i, 233.
- Kerb-Etzdorf, E.** See *J. Kerb*.
- Kermack, W. O.**, syntheses in the indole group. I, i, 67.
- Kermack, W. O.**, and *P. MacCullum*, colloidal properties of Wassermann antigens, i, 197.
influence of gelatin on the stability of a colloidal solution of cholesterol and on the charge on the particles, ii, 525.
- Kermack, W. O.**, and *C. I. B. Voge*, action of salts with multivalent cations on colloidal solutions of gold and gum benzoin, ii, 523.
- Kermack, W. O.**, and *W. T. H. Williamson*, stability of suspensions. I. Rate of sedimentation of kaolin suspensions, ii, 523.
- Kern, J. W.**, *R. L. Shriner*, and *R. Adams*, platinum and palladium oxides as catalysts in the reduction of organic compounds. IX. Reduction of olefines, i, 625.
- Kern, W.** See *F. Fichter*.
- Kernbach, M.**, protein in exhumed bone tissue and its antigenic properties, i, 326.
- Kerr, C. A.** See *J. M. Robertson*.
- Kerr, R. W.** See *W. H. Eddy*.
- Kerridge, P. T.**, use of the glass electrode in biochemistry, i, 1201.
- Keschan, A.**, separation of phosphoric acid in qualitative analysis by means of basic bismuth nitrate, ii, 328.
precipitation of oxalic acid with basic bismuth nitrate in qualitative analysis, ii, 1008.
- Kesting, J.**, production of ethylene for the preparation of ethylene bromide from alcohol by the contact process, i, 625.
- Ketchum, P. W.**, extension of Bohr's correspondence principle to small quantum numbers, ii, 1.
- Keuffel, C. W.**, direct reading spectrophotometer, ii, 1193.
- Keunecke, E.** See *W. Biltz*.
- Keyes, F. G.**, and *F. W. Sears*, recent measurements of the Joule effect for carbon dioxide, ii, 275.
- Keyworth, C. M.**, arylamine salts of some sulphonic acids of the benzene series. I. Benzenemonosulphonic acid, i, 124.
- Keyworth, C. M.** See also *R. B. Forster*.
- Kharasch, M. S.**, and *M. W. Graffin*, preparation and decomposition of unsymmetrical mercuri-organic compounds; a method of establishing the relative degree of negativity of organic radicals, i, 1107.
- Kharasch, M. S.**, and *B. Sher*, electronic conception of valency and heats of combustion of organic compounds, ii, 636.
- Khastgir, S. R.**, and *W. H. Watson*, spectroscopic evidence of *J*-transformation of X-rays, ii, 336, 727.
- Khastgir, S. R.** See also *C. G. Barkla*.
- Khotinska, E.**, and (*Mme.*) *T. Epifanova*, mucic acid, i, 783.
- Kidd, J. D.** See *K. C. Bailey*.
- Kidner, C. A.** See *S. Dushman*.
- Kieferle, F.**, *J. Schwaibold*, and *C. Hackmann*, concentration of citric acid in cow's milk and its relation to the chlorine: sugar ratio, i, 855.
- Kieniger, O.** See *E. Wilke*.
- Kienzl, H.** See *R. Kremann*.
- Kieper, K.**, volumetric determination of zinc, ii, 70.
- Kierzek, L.** See *A. Korczynski*.
- Kiesel, A.**, m.p. of cerotic acid, i, 1035.
- Kiesel, K.**, stalagmometric investigations on urine, in particular that of the large herbivora. I. Methods. II. Nature of the capillary-active substance of urine. III. Adsorption of the capillary-active substance of urine, i, 98.
- Kiess, C. C.**, series regularities in the spark spectrum of nitrogen, ii, 4.
series in the arc spectrum of nitrogen, ii, 911.
- Kiess, C. C.** See also *W. F. Meggers*.
- Kijner, N.**, action of hydrazine on dimethylpyrone, i, 1105.
- Kijkwin, N.** See *V. Ipatiev*.
- Kikuchi, K.**, comparative urea determinations on human and animal urines, i, 609.
- Kilby, W.** See *J. I. M. Jones*.
- Kimura, K.** See *G. von Hevesy*.
- Kimura, M.**, classification of enhanced lines of various elements. II. Spectra of intermittent arc shunted by a condenser, ii, 726.

- Kimura, M.**, and *G. Nakamura*, cathode spectra of metals and their salts, ii, 166.
cathode spectra of metals, ii, 167.
classification of enhanced lines of various elements. I., ii, 726.
- Kindler, K.**, preparation of primary, secondary, and tertiary amines, i, 387.
- Kindler, W.** See *R. Willstätter*.
- Kindscher, E.** See *V. Rodt*.
- Kindt, G.** See *D. Bigiavi*.
- King, A. S.**, electric furnace spectra of vanadium and chromium in the ultra-violet, ii, 453.
- King, C. V.** See *J. N. Brönsted*, and *J. Kendall*.
- King, H.**, and *W. O. Murch*, trypanocidal action and chemical constitution. I. Arylamides of *p*-aminophenylarsinic acid, i, 319.
- King, J. F.**, and *S. P. Smedley*, vaporization of liquid mixtures, ii, 101.
- King, W. B.** See *H. Gilman*.
- King, W. J.**, volumetric determination of small quantities of carbon in tungsten, ii, 435.
- Kingdon, K. H.**, electron emission from adsorbed films on tungsten, ii, 9.
- Kingdon, K. H.** See also *I. Langmuir*.
- Kingsbury, F. L.** See *C. S. Marvel*.
- Kingslake, R.**, new type of nephelometer, ii, 821.
- Kingston, H. L.**, and *S. B. Schryver*, gelatin. III. Separation of the products of hydrolysis of gelatin by the carbamate method, i, 89.
- Kinkel, E.** See *E. Sauer*.
- Kinnersley, H. W.**, and *R. A. Peters*, antineuritic yeast concentrates. I., i, 1516.
- Kinnersley, H. W.**, *R. A. Peters*, and *B. T. Squires*, animal quinoidine, i, 997.
- Kipping, F. B.**, and (*Sir*) *W. J. Pope*, resolution of *dl*-diphenylpropylene-diamine and *dl*-1:4-diphenyl-2-methyl-piperazine, i, 22.
- Kipping, F. S.**, organic derivatives of silicon. XXX. Complex silicohydrocarbons $[\text{SiPh}_2]_n$, i, 87.
- Kipping, F. S.**, and *T. Greasley*, isomeric benzoyl derivatives from vinyl-diacetonamine, i, 144.
- Kipping, F. S.** See also *L. R. Vyle*.
- Kircher, A.**, and *F. von Ruppert*, determination of arsenic in "salvarsan" and its congeners, ii, 240.
- Kirchoff, P.** See *M. Volmer*.
- Kirchrath, H.** See *A. Schönberg*.
- Kirner, W. R.** See *J. B. Conant*.
- Kirpal, A.**, 2-pyridone-1-acetic acid, i, 66.
- Kirpal, A.**, and *E. Reiter*, 3-nitro-pyridine and its derivatives, i, 697.
- Kirsch, G.**, radioactive methods for the age determination of minerals, ii, 320.
retrograde H-particles from disintegrating atoms, ii, 621.
atomic disintegration by α -particles, ii, 923.
- Kirsch, G.** See also *H. Pettersson*.
- Kistiakovski, G.** See *M. Bodenstein*.
- Kitahara, Y.**, excretion of chlorophyll derivatives in the urine. III., i, 460.
- Kitasato, T.** See *K. Takahashi*.
- Kitasato, Z.**, biochemical study of phycoerythrin and phycocyanine, i, 1111.
- Kitchen, F. N.** See *I. M. Heilbron*.
- Kitran, B. E.**, equilibrium diagrams and the heats of formation in some binary organic systems. I., ii, 533.
- Klamer, C. E.**, effect of chemicals on various kinds of glass, ii, 427.
- Klander, F.**, weathering of sandstone by circulating solutions, ii, 821.
- Klarer, J.** See *Hans Fischer*.
- Klarer, W.** See *P. Karrer*.
- Klarmann, E.** See *E. Abderhalden*.
- Klason, P.**, constitution of pine lignin. IV. and V., i, 371, 1246.
cuprous hydroxide, ii, 318.
sugar analysis by Fehling's method, ii, 331.
- Klauer, H.** See *R. Lorenz*.
- Kleeberg, J.**, beryllium compounds as adsorption media, ii, 956.
- Kleeman, R. D.**, nature of the constant of mass action, ii, 1170.
- Kleeman, R. D.**, and *C. R. Pitts*, sign of the electrical layer furthest away from the surface of a solution in contact with air or metal, ii, 659.
- Kleiber, M.**, action of electric current on micro-organisms, i, 1509.
- Klein, (Mlle.) A.**, reactions of benzoic acid at the boundary of two liquid phases, ii, 802.
relation between rapidity of stirring and velocity of reaction in heterogeneous systems, ii, 802.
reactions between liquid amalgams and aqueous solutions, ii, 802.
- Klein, (Mlle.) A.** See also *K. Jabłczyński*.
- Klein, G.**, and *O. Werner*, physiology and distribution of flavones, i, 870.
micro- and histo-chemical demonstration of free and bound oxalic, succinic, malic, tartaric, and citric acids, i, 871.
- Klein, L.**, bitter principles in hops and beer, ii, 248.
- Klein, L.** See also *O. L. Brady*.

- Klein, W.**, formation of methæmoglobin, i, 709.
- Kleine, H.**, change of resistance of platinum and iron wires in a high vacuum due to absorbed gas, ii, 947.
- Kleinicke, W.** See **G. Heller**.
- Kleinmann, H.**, nephelometry, ii, 389.
- Kleinmann, H.** See also **P. Bona**.
- Klemenc, A.**, nitric oxide reaction, ii, 407.
sensitive glass manometer for gases which attack mercury, ii, 995.
- Klemenc, A.**, and **R. Schöller**, nitric acid. I. Behaviour as a nitrating agent, ii, 212.
- Klemenc, A.**, and **A. Schroth**, action of nitrogen peroxide on metallic copper and its adsorption by cuprous oxide, ii, 228.
- Klemensiewicz, Z.**, conductivity of chlorides in fused antimony trichloride and Ghosh's theory, ii, 40.
- Klemm, D.** See **W. Eller**.
- Klemm, W.** See **W. Biltz**.
- Klenk, E.**, new cerebroside, i, 1346.
- Klenk, E.** See also **H. Thierfelder**.
- Klever, H. W.** See **H. Staudinger**.
- Klimone, J.** [with **C. B. von Moltini**, and (*Miss*) **I. Benedik**], configuration of the higher unsaturated fatty acids and their salts, i, 505.
- Kling, A.**, and (*Mme.*) **A. Lassieur**, separation of zinc and nickel by hydrogen sulphide, ii, 439.
- Klingstedt, F. W.**, determination of p-ntosan, ii, 720.
ultra-violet absorption spectra of mono- and di-derivatives of benzene, ii, 929.
- Klinke, K.**, volumetric determination of sulphate in minute amounts, ii, 239.
- Klissiniis, N.**, antiseptic action of cupric chloride in solvents of different dielectric constants, i, 1500.
- Klissiniis, N.** See also **G. Joachimoglu** and **L. Pincussen**.
- Klobusitzky, D. von**, rate of sinking of erythrocytes with reference to the Hofmeister ionic series, i, 710.
- Klobusitzky, D. von.** See also **J. Csapó**.
- Klockmann, P.** See **R. Stoermer**.
- Kloppers, R. K.** See **G. Hertz**.
- Klopstock, A.** See **H. Sachs**.
- Klopstock, E.** See **J. Wohlgemuth**.
- Klopstock, F.**, nature of the specific hæmolysins, i, 1345.
- Klosky, S.**, and **C. Marano**, titania jellies, ii, 1057.
- Kloss, J.** See **G. Heller**.
- Kluyver, A. J.**, and **H. J. L. Donker**, formation of acetylmethylcarbinol and 2:3-butyleneglycol in the fermentation of sugars by alcohol yeasts and true lactic acid bacteria, i, 1215.
the unity in the chemistry of the fermentative sugar dissimulation processes of microbes, i, 1215.
catalytic transference of hydrogen as the basis of the chemistry of decomposition processes, ii, 1173.
- Knaggs, I. E.**, crystalline structure of pentaerythritol tetranitrate, ii, 748.
- Knaggs, J.**, and **S. B. Schryver**, gelatin. IV. Purification of gelatin by flocculation in an electric field, i, 90.
gelatin. VI. Influence of the treatment of the precursor on the character of the gelatin, i, 90.
gelatin. VII. Non-amino nitrogen of gelatin, i, 90.
- Knaus, W.** See **Robert Müller**.
- Knecht, E.**, and **E. Hibbert**, constituents of French and American resins. II., i, 1420.
interaction of dextrose and methylene-blue in an alkaline medium, ii, 605.
- Knecht, E.**, and **E. F. Muller**, action of heat on cotton cellulose, i, 370.
- Knecht, E.**, and **J. H. Platt**, alkali-cellulose, i, 370.
- Knehans, K.** See **F. Sauerwald**.
- Knehe, E.** See **M. Bergmann**.
- Knickmann, E.**, and **M. Helbig**, "Hager" soils, i, 1528.
- Kniphorst, L. C. E.**, nitration of symmetrical arylalkylcarbamides, i, 905.
- Knipping, H. W.**, I. Determination of the carbon dioxide tension in alveolar air. II. Acetylene narcosis, i, 176.
- Knobel, M.**, commutator measurements on polarised electrodes, ii, 211.
effect of pressure on overvoltage, ii, 212.
effect of surface condition on overvoltage, ii, 547.
porous electrode for oxidations or reductions, ii, 1092.
- Knoll, W.** See **H. Fringsheim**.
- Knoll & Co.**, preparation of salts of dimethylxanthine with organic acids, i, 828.
- Knoop, F.**, and **J. G. Blanco**, acetylation of amino-acids in the animal body, i, 1208.
- Knoop, F.**, and **M. Gehrke**, oxidation of acetic acid, acetone, and toluene, i, 1131.

- Knoop, F.**, and **H. Jost**, influence of some aliphatic substances on the level of lactic acid and sugar in the blood, i, 180.
- Knoop, F.**, and **H. Oesterlin**, natural synthesis of amino-acids and its experimental reproduction, i, 1493.
- Knuth, C. A.** See **A. S. Richardson**.
- Kobal, M.** See **C. Neuberg**.
- Koberne, M.** See **B. Emmert**.
- Kobiliansky, R.** See **F. Feigl**.
- Kobliansky, G. G.** See **S. V. Lebedev**.
- Koblic, O.**, oxidimetric titration of uranium, ii, 331.
- Koch, C.** See **H. Remy**.
- Koch, E. M.**, and **F. C. Koch**, presence of trehalose in yeast, i, 1508.
- Koch, F. C.** See **E. M. Koch**.
- Koch, H.** See **A. Sieglitz**.
- Koch, J. A.** See **L. H. Cretcher**.
- Koch, L.** See **G. Masing**.
- Koch, P. P.**, and **B. Kreiss**, change of mass of silver halides on intense illumination, ii, 810.
- Koch, P. P.**, and **H. Vogler**, separation of silver from silver halides through intense irradiation, ii, 941.
- Koch, P. P.** See also **R. Blunck**.
- Koch, W.** See **W. Mund**.
- Kochinki, K. L.** See **H. Reinwein**.
- Kochmann, R.**, auxourees; mechanism of the action of calcium, i, 200.
- Kockel, L.**, dependence of dielectric constant of aqueous solutions on temperature, ii, 932.
- Kodama, S.** See **K. Linderström-Lang**.
- Köberle, K.** See **H. Lecher**.
- Kögl, F.**, and **J. J. Postowsky**, colouring matters of fungi. I. and III. Atromentin, i, 50, 1439.
- colouring matters of fungi. II. Dyes from *Dermocybe sanguinea*, Wulf, i, 1083.
- Kögl, F.**, and **G. von Taeuffenbach**, colouring matters of fungi. IV. Xylindrin, the colouring matter of the green mould of decayed wood, i, 1440.
- Kögler, F.** See **H. P. Kaufmann**.
- Köhl, A.** See **W. D. Treadwell**.
- Koehler, A. E.**, acidosis of operative anaesthesia, i, 195.
- Köhler, B.**, modified Soxhlet extraction apparatus, ii, 708.
- Köhler, K.** See **E. Koenigs**.
- Koehler, M. G. A.** See **M. Marquayrol**.
- Köhler, W.** See **G. Heller**.
- König, F.**, adsorption capacities of different charcoal powders, ii, 1054.
- König, J.** See **W. Manchot**.
- König, W.** See **F. Dehnert**.
- König, Walter**, homologous "vinylene"-indole and pyrrole dyes, i, 1184.
- König, Walter**, and **W. Meier**, thio- and oxa-cyanines, i, 705.
- König, Walter.** See also **D. Vörlander**.
- Koenigs, E.**, and **H. Geissler**, 3-hydroxy-4:5-pyridothiophen, i, 166.
- Koenigs, E.**, and **F. K. Hoffmann**, synthesis of 4-methyl-3-ethylpyridine and a new parvoline [2:6-dimethyl-3-ethylpyridine], i, 298.
- Koenigs, E.**, and **O. Jungfer**, sulphonation of 4-amino- and 4-hydroxypyridine, i, 154.
- Koenigs, E., K. Köhler**, and **K. Blindow**, pyridonemethides [methylene-dihydropyridines], i, 833.
- Köpke, O.**, Winkler's method for determining the iodine-bromine number without potassium bromide, ii, 246.
- Koernicke, E.**, determination of the heat of dissociation of mercury molecules from the band spectrum of mercury vapour, ii, 848.
- Kötz, A.**, and **W. Hoffmann**, hydroaromatic 1:2-oxides and 3-keto-1:2-oxides, i, 910.
- Kofer, L.**, and **W. Schrutka**, toxicity of saponins and detoxication by cholesterol, i, 1501.
- Kofer, L.**, and **A. Wolkenberg**, behaviour of saponins on dialysis, i, 1519.
- Kohlhaas, W.** See **K. von Auwers**.
- Kohlrausch, A.** See **F. B. Hofmann**.
- Kohlschütter, V.**, and **C. Egg**, "somatoid" forms, ii, 1035.
- alterations of the habit and of the modification of calcium carbonate by substances in solution, ii, 1036.
- Kohman, G. T.**, solubility relations of isomeric organic compounds. IV. Mutual solubility of *o*-, *m*-, and *p*-nitroanilines and of *o*-, *m*-, and *p*-chloronitrobenzenes, ii, 1052.
- Kohman, G. T.**, and **D. H. Andrews**, solubility relations of isomeric organic compounds. V. Construction of the ideal ternary solubility diagram, and its use in analysis, ii, 1053.
- Kohman, G. T.** See also **D. H. Andrews**.
- Kohn, H.**, and **M. Guckel**, experiments on the carbon arc; vapour pressures of carbon, ii, 100.
- Kohn, M.**, and **A. Fink**, bromophenols. III. Bromo derivatives of phenol and the mobility of their bromine atoms, i, 133.
- Kohn, M.**, and **S. Grün**, bromophenols. XI. Bromination of quinol monomethyl ether and of nitroquinol dimethyl ether, i, 1265.

- Kohn, M.**, and **L. W. Guttman**, bromophenols. VII. Bromine substitution products of quinol, i, 1263.
- Kohn, M.**, and **M. Jawetz**, bromophenols. IV. Bromo derivatives of *o*-cresol and the mobility of their bromine atoms, i, 135.
- Kohn, M.**, and **R. Lakner**, compounds obtained by the action of magnesium phenyl bromide on β -bromoethylphthalimide and γ -bromopropylphthalimide, i, 1276.
- Kohn, M.**, and **G. Löff**, bromophenols. VIII. Bromo- and bromonitroresorcinols, i, 1264.
monomethyl styphnate and a new trinitroguaiacol, 3:4:5-trinitro-2-hydroxyanisole, i, 1265.
- Kohn, M.**, and **R. Marberger**, bromophenols. X. Ethers of chloronitro and bromonitro derivatives of quinol and toluquinol and the mobility of the halogen atoms therein, i, 1264.
- Kohn, M.**, and **S. Strassmann**, bromophenols. IX. Bromo- and bromonitro-phenols, i, 1264.
- Kohn, M.**, and **M. Weissberg**, bromophenols. VI. *m*-Bromophenols, i, 655.
- Kohn, M.**, and **J. Wiesen**, bromophenols. V. Some bromo derivatives of *p*-cresol and the mobility of their bromine atoms, i, 539.
- Kohn-Abrest, E.**, detection of gaseous poisons in blood, i, 451.
gases in fresh, putrefied, and frozen blood, i, 604.
progress in chemical toxicology, i, 1116.
- Koidzumi, S.**, electrolytic oxidation of alcohols. II. Electrolytic chlorination of ethyl alcohol, ii, 808.
- Kolker, I.**, and **A. Lapworth**, direct combination of ethylenic hydrocarbons with hydrogen sulphites, i, 353.
- Kolkmeijer, N. H.**, **J. M. Bijvoet**, and **A. Karszen**, crystal structure of mercuric sulphide. I and II, ii, 93, 484.
- Koll, W.** See **O. Diels**.
- Koller, G.** See **E. Späth**.
- Koller, L. R.**, electron emission from oxide-coated filaments, ii, 617.
- Kollo, (Mrs.) C.**, and **N. Georgian**, separation of aluminium from calcium by means of hexamethylenetetramine, ii, 330.
- Kolosovski, N. de**, entropy of perfect gases at absolute zero, ii, 496.
partition phenomena, ii, 506.
applications of the kinetic theory of gases, ii, 531.
heats of solution of glycerol, ii, 540.
heats of solution of barium chloride in aqueous alcohol, ii, 540.
- Kolosovski, N. de**, relation between the critical temperature and the expansion of liquids, ii, 646.
influence of the variation of the coefficient of viscosity with temperature on the specific heat of solutions, ii, 653.
viscosity of solutions, ii, 765.
theory of specific heats of solutions, ii, 791.
viscosity of acetic acid solutions, ii, 859.
work of viscosity and apparent molecular heat of substances in solution, ii, 870.
apparent molecular heat and viscosity of solutions of naphthalene in organic solvents ii, 1163.
- Kolosovski, N. de**, and **A. Kraeff**, heats of solution of phenols in water, ii, 540.
- Kolthoff, I. M.**, colour reaction for glycerol, ii, 161.
condition of methyl-orange in its transition interval, ii, 296.
condition of methyl-red in its transition interval, ii, 296.
adsorption of electrolytes on charcoal, ii, 383.
buffer mixtures prepared without standard acid as base, ii, 396.
salt errors of indicators in solutions poor in electrolytes, ii, 596.
trustworthiness of the quinhydrone electrode for the measurement of hydrogen-ion concentration in various solutions, ii, 671.
standard values in the calculation of the hydrogen exponent from measurements with the hydrogen and quinhydrone electrodes, ii, 794.
ionisation and catalysis experiments suitable for lecture demonstrations, ii, 819.
titration of iodides with iodate, ii, 1000.
albumin solutions, ii, 1055.
sodium rhodizonate as a reagent for barium, strontium, and lead, ii, 1095.
- Kolthoff, I. M.**, and **B. D. Hartong**, antimony electrode as an indicator for hydrogen ions and its application in potentiometric titrations of acids and bases, ii, 325.
- Kolthoff, I. M.**, and **O. Tomiček**, potentiometric determination of vanadium, chromium, and iron in presence of each other and its application to steel analysis, ii, 72.
- Koltschin, N. J.**, equation of state and its relation to the laws of thermodynamics, ii, 1061.

- Komatsu, S.**, and **C. Fujio**, camphor series. IV., i, 564.
- Komatsu, S.**, and **T. Hiraidzumi**, Beckmann rearrangement. XIV. Distillation of the sodium salts of oximes under reduced pressure, i, 934.
- Komatsu, S.**, and **M. Ishimasa**, ripening of the kaki-fruit. VII., i, 759.
- Komatsu, S.**, and **M. Kurata**, catalytic action. XI. and XV. Catalytic activity of reduced copper. I. and II., i, 687, 942.
- camphor series. VII. Catalytic formation of menthols and menthones from *l*-menthol, i, 943.
- camphor series. V., i, 1290.
- Komatsu, S.**, and **B. Masumoto**, catalytic action. X. Comparative study of the catalytic activity of reduced copper, reduced nickel, and thoria. I., ii, 1071.
- Komatsu, S.**, and **N. Matsunami**, kaki-shibu. III. Constitution of shibuol. II., i, 950.
- Komatsu, S.**, **N. Matsunami**, and **M. Ishimasa**, kakishibu. II., i, 759.
- Komatsu, S.**, and **R. Nodzu**, synthesis of phosphoric acid esters. II. Synthesis of some glucose monophosphoric acid esters and their behaviour towards yeast, i, 515.
- chemistry of Japanese plants. VII. Phyto-chemical study of yamamomo-fruit, i, 1025.
- Komatsu, S.**, and **C. Tanaka**, catalytic action. XIV. Comparative study of the catalytic activity of reduced copper, reduced nickel, and thoria. II., i, 905.
- chemistry of Japanese plants. III. Chemical development in the growth of bamboo shoots, i, 1369.
- Komatsu, S.**, and **H. Ueda**, chemistry of Japanese plants. V. Chemical composition of *Hydrangea paniculata*, Sieb. I., i, 762.
- constitution of polysaccharides. III. Plant mucilage. I., i, 762.
- Komatsu, S.**, and **S. Yamada**, chemistry of Japanese plants. IV. Saturated fatty acids in camphor seed fat, i, 881.
- Komatsu, S.**, and **T. Yukitomo**, camphor series. V. Catalytic action of reduced copper and reduced nickel on *l*-menthol, i, 687.
- Komatsu, S.** See also **T. Hara**.
- Komiyama, J.** See **F. Haffner**.
- Komm, E.**, the tryptophan-aldehyde reaction, ii, 164.
- Komm, E.** See also **E. Abderhalden**, and **A. Heiduschka**.
- Komori, K.** See **M. Horii**.
- Kon, G. A. R.**, and **R. P. Linstead**, three-carbon system. III. $\alpha\beta$ - $\beta\gamma$ Change in unsaturated acids, i, 506.
- three-carbon system. IV. A case of retarded mobility, i, 633.
- Kon, G. A. R.**, **L. F. Smith**, and **J. F. Thorpe**, ring-chain tautomerism. XII. Derivatives of $\beta\beta$ -dimethyl- α -ethylglutaric acid, i, 509.
- Kon, S.**, and **C. Funk**, unusual type of fatty compound in a product of animal origin [caseinogen], i, 230.
- Kon, S.** See also **C. Funk**.
- Kondakov, I. L.**, and **S. Saprikin**, pinene. I. Action of the pinenes on certain compounds capable of yielding hydrogen halides, i, 1080.
- terpenes. II. Synthesis of diterpenes, i, 1163.
- terpenes. III. Synthetic diterpenes and polyterpenes, i, 1292.
- Kondo, K.**, casein, ii, 518.
- Kondo, M.**, transformation of glucal into deoxyglucose in the rabbit, i, 99.
- Kondo, S.**, metabolism of acid-fast bacteria. III. Nutritional needs of the bacillus of avian tuberculosis; utilisation of simple chemical substances for its growth, i, 206.
- metabolism of acid-fast bacteria. IV. Metabolism of the human and bovine types of tubercle bacillus, i, 477.
- Kondratév, V.**, ionisation of salt vapours. II., ii, 615.
- Kondyrev, N. V.**, electrolytic properties of magnesium organic compounds, i, 529.
- Kondyrev, N. V.**, and **D. P. Manojev**, electrolytic properties of magnesium organic compounds. II. Electrical conductivity of magnesium ethyl bromide in ethereal solutions, i, 529.
- Konermann, E.** See **P. Pfeiffer**.
- Konetschnigg, A.** See **Robert Müller**.
- Konishi, M.**, fate of urocanic (glyoxaline-acrylic) acid in the animal body, i, 731.
- urocanic acid formation from the optical isomerides of histidine, i, 731.
- Konishi, M.**, and **Y. Tani**, fate of glyoxalinepropionic acid (and iminoazolelactic acid) in the dog, i, 731.
- Konovalova, R. A.** See **A. E. Tschitschibabin**.
- Konrich, F.**, and **E. Scheller**, effect of X-rays on cholesterol content, hydrogen-ion concentration, freezing-point depression, and surface tension of blood, i, 1356.
- Kontniková, Z.**, and **M. Shikata**, abnormal ionic activities in concentrated alkoxide solutions, ii, 672.

- Kopaczewski, W.**, coagulation of pectin, i, 872.
 effects of dilution on colloids, ii, 111.
 physical-chemical studies of synthetic colouring matters, ii, 529.
 electrocapillary analysis of colloidal colouring matters, ii, 828.
 turgoelectricity, ii, 978.
- Kopaczewski, W.** See also *E. Henrijean*.
- Kopecky, R.** See *C. Kranz*.
- Kopfermann, H.** See *R. Ladenburg*.
- Kopler, L.**, and *M. Brauner*, unpleasant taste of *Radix primulae*, i, 1224.
- Kopp, E.** See *H. Rupe*.
- Koppenhöfer, S.** See *W. Küster*.
- Korán, V.**, effect of vapours of some organic liquids on the surface tension of water, ii, 659.
- Korczynski, A.**, and *L. Kierzek*, catalysts for the Fischer synthesis of indoles, i, 973, 1097.
- Kordysch, L.**, the Epstein-Sommerfeld quantum rule, ii, 836.
- Koref, F.**, crystal tempering; softening of hard-drawn tungsten single-crystal wire, ii, 846.
- Koref, F.** See also *H. Alterthum*.
- Korenchevski, V.**, effect of excess of calcium on the skeleton, i, 1355.
- Korenchevski, V.**, and *M. Carr*, influence of the parents' diet on the young. I. Influence of the father's diet, i, 210.
 influence of the parents' diet on the young. II. Influence on the young of an excessive amount of fat-soluble factor and calcium in the mother's diet during pregnancy, i, 210.
 comparison of the values of yeast and of orange juice with those of marmite and of decitrated lemon juice, respectively, in the calcification of the skeleton, i, 211.
 influence of the parents' diet on the young. III. Influence on the young of an excessive amount of calcium in the mother's diet during pregnancy, i, 463.
 effects of calcium glycerophosphate, sodium glycerophosphate, and sodium dihydrogen phosphate on the skeleton of rats kept on a diet deficient only in fat-soluble factor, i, 464.
 sexual glands and metabolism. IV. Influence of injections of emulsions of testes and prostate and of insulin-like testicular extracts on the nitrogen metabolism of normal, castrated, and thyroidectomised rabbits, i, 1513.
- Korezyn, J.** See *R. Weiss*.
- Kores, H. J.** See *H. Freundlich*.
- Korn, A.**, force of attraction and repulsion in atoms, ii, 1112.
- Kornfeld, G.**, and *H. Müller*, photochemical formation of hydrogen chloride, ii, 984.
- Kornfeld, H.**, influence of the deformation of ions on optical and chemical constants. III, ii, 12.
- Korschun, G.**, and (*Mme.*) *C. Roll*, absorption spectra of pyrrole and its derivatives. III. Influence of amino and carbamido groups on the absorption spectra of pyrrole derivatives, ii, 258.
- Kortschagin, M. W.**, pigment metabolism in the living organism. I. Action of gastric juice on chlorophyll, i, 200.
- Koser, S. A.**, and *R. H. Galt*, oxalic acid test for indole, i, 1510.
- Kossel, A.**, and *F. Curtius*, bacterial arginase, i, 1505.
- Kostytschev, S.**, and *M. Afanasieva*, respiration of lactic bacteria, i, 1118.
- Kostytschev, S.**, and *L. Frey*, alcoholic fermentation. XI. Acids resulting from yeast fermentation in presence of calcium carbonate, i, 1214.
- Kostytschev, S.**, and *A. Ryskaltchouk*, products of atmospheric nitrogen fixation by *Azotobacter agilis*, i, 1014.
- Kotake, M.** See *R. Majima*, and *H. Wieland*.
- Kotake, Y.**, deamination of amino-acids and transformation of resulting products in the animal organism, i, 730.
- Kotake, Y.**, *M. Chikano*, and *K. Ichihara*, action of *Ordium lactis* on tyrosine and related compounds, i, 746.
- Koten, I. A.**, and *R. Adams*, reactions of the alkyl- and aryl-mercuric hydroxides, i, 236.
- Kotko, L.** See *E. Grischkevitch-Trochimovski*.
- Koulen, K.** See *F. Speyer*.
- Koumans, A. K.**, standard solution for Sahli's haemometer, i, 851.
- Kourilsky, R.** See *H. Bierry*.
- Kovache, A.**, and *E. Tricot*, attempts to synthesise benzene by condensation of acetylene at a high temperature, i, 799.
- Kozakevitch, P. P.**, absorption of arsenic and oxalic acids by certain calcined oxides, ii, 855.
- Kraeff, A.** See *N. de Kolosovski*.
- Kraemer, E. O.**, second isoelectric point of gelatin, ii, 519.
 kino-ultramicroscope, ii, 1156.

- Kraemer, E. O.**, and **J. R. Fanselow**, optical activity of gelatin systems, ii, 1057.
- Kraemer, E. O.**, and **A. J. Stamm**, determination of distribution of size of particles in emulsions, ii, 202.
- Kraft, F.** See **H. Finger**.
- Krajewski, A.** See **G. F. Hüttig**.
- Kramer, B.**, and **I. Gittleman**, iodometric determination of sodium in small amounts of serum, i, 180.
- Kramers, H. A.**, chemical properties of atoms according to the Bohr theory, ii, 835.
- Kranlpuhl, E.** See **R. Lesser**.
- Kranz, C.**, and **R. Kopecky**, laboratory apparatus for high-temperature nitrations, ii, 319.
- Krasnikov, A.** See **N. Seljakov**.
- Kratinova, K.** See **A. Palladin**.
- Kratzer, A.**, band spectra and molecular properties, ii, 836.
- Kratzer, A.**, and **E. Sudholt**, regularities in the resonance spectrum of iodine vapour and the determination of the moment of inertia, ii, 839.
- Kraul, R.** See **K. von Auwers**.
- Kraus, C. A.**, and **W. N. Greer**, tin dimethyl group and some of its reactions, i, 1394.
- Kraus, C. A.**, and **T. Harada**, compounds formed between tin trimethyl hydroxide and tin trimethyl halides, i, 1254.
- Kraus, C. A.**, and **W. C. Johnson**, so-called "metal ammoniums"; vapour pressure of solutions of lithium in liquid ammonia, ii, 389.
- Kraus, C. A.**, and **H. F. Kurtz**, reduction of metals from their salts by means of other metals in liquid ammonia solution, ii, 577.
- Kraus, C. A.**, and **W. V. Sessions**, chemistry of the tin trimethyl group, i, 1253.
- Kraus, E. J.**, logarithmic tables for volumetric analysis, ii, 323.
- Kraus, F.**, **S. G. Zondek**, **W. Arnoldi**, and **E. Wollheim**, position of electrolytes in the organism, i, 198.
- Kraus, I.**, colorimetric determination of tryptophan and its separation from indole and skatole, ii, 448.
- Krause, A.**, reaction between ferric sulphate and alkali, ii, 1192.
- Krause, A. C.**, and **F. C. Krauskopf**, substituted ammonium molybdates and tungstates, i, 908.
- Krause, E.**, and **A. von Grosse** fluorides of organo-metallic compounds. III. Thallium alkyl and aryl fluorides, i, 378.
- alkyl compounds of thallium, i, 1252.
- Krause, E.**, and **O. Schlöttig**, preparation of a crystalline, organic lead compound with four different groups, i, 449.
- Krause, E.** See also **H. Wieland**.
- Krauskopf, F. C.** See **A. C. Krause**.
- Krauss, F.**, and **H. Deneke**, separation of palladium from platinum, ii, 1005.
- Krauss, F.**, and **H. Gerlach**, beryllium. I. Beryllium sulphate and its hydrates, ii, 314.
- iridium tetroxide, ii, 424.
- iridium halides, ii, 1089.
- Krauss, F.**, and **H. Kükenthal**, ruthenium tetroxide. III. Valency of ruthenium in the tetroxide, ii, 480.
- Krauss, F.**, and **D. Wilken**, osmium tetroxide. II. Compounds of osmium tetroxide, ii, 894.
- Krauss, G.** See **F. Feigl**.
- Kraut, H.** See **R. Willstätter**.
- Krauz, C.**, and **O. Turek**, decomposition of [2:4:6]-trinitrotoluene by the action of sunlight, i, 646.
- Kraybill, H. R.**, and **T. O. Smith** [metabolism of the tomato], i, 1122.
- Krebs, H. A.**, precipitation of colloidal gold by proteins, ii, 1155.
- Kreff, H.**, Doppler effect in canal rays from hydrogen, oxygen, and nitrogen, ii, 3.
- Doppler effect of arc and spark lines, ii, 78.
- Doppler effect in canal rays of hydrogen, ii, 78.
- Kreis, W.** See **H. Staudinger**.
- Kreiss, B.** See **P. P. Koch**.
- Kreiss, S.** See **D. Vorländer**.
- Kremann, R.**, and **O. Baukovic**, electrolysis of molten alloys. VIII. Tin-zinc alloys, ii, 679.
- Kremann, R.**, and **O. Benda**, electrolysis of molten alloys. VII. Silver-lead alloys, ii, 679.
- Kremann, R.**, and **J. Dellacher**, electrolysis of molten alloys. IX. Tin-aluminium alloys, ii, 679.
- Kremann, R.**, and **H. Drazil**, influence of substitution in the components on equilibria in binary solutions. XLV. Binary systems of benzhydrol with phenols and amines, ii, 649.
- Kremann, R.**, and **R. Gruber-Rehenburg**, electrolysis of molten alloys. VI. Copper alloys (Cu-Zn, Cu-Sn, Cu-Ag, Cu-Al), ii, 678.
- Kremann, R.**, and **A. Kapaun** [with **Budan**], electrolysis of molten amalgams of lead, tin, and bismuth, ii, 313.
- Kremann, R.**, **H. Kienzl**, and **K. Markl**, electrolysis of molten alloys. III. Lead-cadmium and lead-sodium alloys, ii, 132.

- Kremann, R., Robert Müller, and H. Kienzl**, electrolysis of molten alloys. IV. Sodium-mercury alloys, ii, 132.
- Kremann, R., Robert Müller, and H. Ortner**, electrolysis of molten alloys. V. Potassium, calcium, and cadmium amalgams, ii, 132.
- Kremann, R., and P. G. von Rehenburg**, electrolysis of some tin alloys, ii, 312.
- Kremann, R., and R. G. von Rehenburg**, electrolysis of potassium-sodium alloys, ii, 132.
- Kremann, R., E. Zechner, and H. Drazil**, influence of substitution in the components on equilibria in binary solutions. XLVII. Binary systems of acids or esters with phenols, ii, 650.
- Kremann, R., K. Zechner, and G. Weber**, influence of substitution in the components on equilibria in binary solutions. XLVI. Binary systems of azobenzene with phenols, ii, 650.
- Kremers, F.** See *L. Claisen*.
- Kremers, H. C.**, laboratory circulating pump for corrosive vapours, ii, 427. rare earths. XX. Preparation and properties of metallic neodymium, ii, 588.
- Kremers, H. C., and H. Beuker**, rare earths. XIX. Preparation and some properties of metallic cerium, ii, 581.
- Kremers, H. C.** See also *A. P. Thompson*, and *J. Wierda*.
- Křepelka, H., and N. Nikolić**, revision of the atomic weight of aluminium. III. Analysis of aluminium chloride, ii, 620.
- Křepelka, H., and W. Podroužek**, precipitation of ferric salts with ammonium sulphide, ii, 703.
- Křepelka, H., and F. Toul**, solubility of silver in water. I., ii, 697.
- Krethlow, A.**, optical and magnetic rotation dispersion, dispersion, density, and absorption spectra of chemically homologous compounds, ii, 1029.
- Kreuder, A.** See *K. von Auwers*.
- Kreulen, D. J. W.** [analysis of coal]; three point method with rapid cooling, ii, 240.
- Krey, W.** See *K. Brand*.
- Kriegesmann, L.** See *L. Grebe*.
- Kriesel, F. W.**, analysis of the new germanium-gallium mineral germanite, ii, 153.
- Krige, G. J. R.** See *G. Tammann*.
- Krings, W.** See *G. Tammann*.
- Krishnan, K. S.**, molecular scattering of light in liquids, ii, 1030.
- Krishnan, M. S.**, cordierite from Madras, India, ii, 322.
- Kriss, L.**, nephelometric determination of calcium and magnesium, i, 852.
- Krizenecky, J., and J. Podhradsky**, function of water-soluble nutrients in the metabolism of aquatic animals. IV. Significance of carbamide in modifying the growth-promoting effect of dissolved nutrients on tadpoles, i, 612.
- Kröger, M.** See *M. Le Blanc*.
- Kroetz, C.**, biochemistry of irradiation. II. Influence of ultra-violet and Röntgen rays on the water, salt, and protein content of serum, i, 178. biochemistry of irradiation. III. Effect of radiant heat on the reaction, the alkali reserve, and the salt equilibrium of the blood, i, 178. adsorption of hydrogen and hydroxyl ions by charcoal, ii, 191.
- Kroetz, C.** See also *K. Gollwitzer-Meier*.
- Krohn, I. F. M.** See *O. Aschan*.
- Krollpfeiffer, F.**, spectrochemistry of thiochromans, Δ^2 -thiochromens, and thiochromanones, ii, 1028.
- Krollpfeiffer, F.** [with *H. Schultze, H. Schlumbohm, and E. Sommermeyer*], thiochromanones and their transformation products. II., i, 1305.
- Krone, P.** See *R. Anschütz*.
- Kronig, R. de L.**, intensity of multiplets and their Zeeman components. I. and II., ii, 458, 917. theory of the influence of magnetic fields on the stopping power of gases for α -particles, ii, 834.
- Kronig, R. de L.** See also *S. Goudsmit*.
- Kroon, (Miss) R.** See *A. Smits*.
- Kruber, O.**, aromatic hydrocarbons in low-temperature tar, i, 1137.
- Krueger, A. P.** See *F. Proescher*.
- Krüll, H.** See *A. Schönberg*.
- Krug, R.** See *R. Dietzel*.
- Kruger, A.**, normal and basic copper sulphate, ii, 58.
- Kruger, F., and A. Sacklovsky**, X-ray investigation of palladium-silver alloys containing hydrogen, ii, 1125.
- Kruyt, H. R.**, lyophile colloids and Poiseuille's law, ii, 515. albumin solutions, ii, 1056.
- Kruyt, H. R., and J. Postma**, silicic acid sol, ii, 861.
- Kruyt, H. R., and C. Robinson**, lyophile colloids and Poiseuille's law, ii, 391.
- Kruyt, H. R., and H. J. C. Tendeloo**, determination of the size of invisible particles in emulsoid sols, ii, 113. limited significance of hydrogen-ion concentration as a factor in determining the condition of lyophilic sols, ii, 1059.

- Krzywanek, W.**, calorific value and elementary analysis of animal fats, i, 1496.
- Kubel, K.** See *F. Foerster*.
- Kubisch, G.** See *T. Sabalitschka*.
- Kubota, B., Y. Fujimura, and K. Akashi**, formation of a new dihydroxydiphenyl from resorcinol, i, 809.
- Kubota, B., and K. Yoshikawa**, poisoning of nickel catalyst by thiophen and action of a copper catalyst, i, 805.
composition of reduced nickel as a catalyst, ii, 1174.
- Kubota, O., and A. G. Perkin**, wandering of the acetyl group during methylation, i, 1159.
- Kuckertz, H.** See *R. Anschütz*.
- Kudar, J.**, quantum theory of red displacement of spectral lines, ii, 467.
- Kudrjavzeva, A.**, influence of polyneuritis on the creatine content of the muscle, i, 329.
- Kudrjavzeva, A.** See also *N. V. Kultashev, and A. Palladin*.
- Kühl, F.**, rapid determination of sulphur, ii, 156.
- Kühn, R.** See *H. Baur*.
- Kühnl, N., and W. Pauli**, general colloid chemistry. XIV. Constitution and stability of iron oxide sols. IV., ii, 776.
general colloid chemistry. XIV. Structure of heteropeptoids. I. Aluminium-iron oxide sols, ii, 776.
- Kükenthal, H.** See *G. F. Hüttig, and F. Krauss*.
- Kürschner, K.**, sublimation of "unsublimable" substances, i, 890.
lignin, i, 1387.
- Kürthy, L.**, chemistry and physiology of bismuth. V. Excretion of subcutaneously and intra-muscularly administered bismuth, i, 101.
- Kürthy, L., and Hans Müller**, chemistry and physiology of bismuth. III. Determination of bismuth in urine, i, 100.
chemistry and physiology of bismuth. IV. Excretion of orally administered bismuth, i, 100.
chemistry and physiology of bismuth. I. Determination of bismuth, ii, 73.
- Kürthy, L.** See also *E. A. Hafner, and Hans Müller*.
- Küster, W.**, attempts to prepare a methylhydroxyethylmaleic acid. II. Derivatives of acetylcyclopropanecarboxylic acid, i, 922.
- Küster, W., E. Brudi, and S. Koppenhöfer**, 3-carbethoxy-2:4-dimethylpyrrole-5-vinyl- ω -dicarboxylic acid and -5-vinyl- ω -carboxylic acid, i, 972.
- Küster, W., and F. Grassner**, attempts to prepare a methylhydroxyethylmaleic acid. I. Derivatives of cyclopropanedicarboxylic acid, i, 922.
- Küster, W., and R. Haas**, bile pigments. XIV. Treatment of ox gallstones, i, 722.
- Küster, W., R. Haas, and H. Maurer**, bile pigments. XV. Bilirubin dimethyl ester, i, 307.
- Küster, W., and W. Heess**, prosthetic group of blood pigments, i, 992.
- Küster, W., and R. Huttenlocher**, porphyrins. VIII. Formation of porphyrin from hæmin, i, 845.
additive product of chlorine and a monomethyl(chloro)hæmin, i, 992.
- Küster, W., and F. Schoder**, formation of sorbose by condensation of formaldehyde, i, 366.
- Kuhlmann, A.** See *H. Remy*.
- Kuhlmann, W. H. F.** [ultra-balance], ii, 706.
- Kuhlmann, W. H. F.** See also *F. Holtz*.
- Kuhn, A.**, water fixation in colloids, ii, 36.
- Kuhn, A., and H. Pirsch**, peptisation of bismuth hydroxide, ii, 525.
- Kuhn, A.** See also *W. Ostwald*.
- Kuhn, H.** See *E. Wilke*.
- Kuhn, M.** See *J. von Braun*.
- Kuhn, P.** See *B. Stuber*.
- Kuhn, R.**, constitution of starch and different modes of action of the amylases, i, 11, 636.
theory of the isoelectric point, ii, 117.
- Kuhn, R., and H. Baur [with R. Heckscher]**, insulin and its action. IV. Influence of insulin on the lactic acid content and hydrogen-ion concentration of the blood, i, 343.
- Kuhn, R., and F. Ebel**, stereochemistry of the tetrahedral carbon atom. I. Inversion phenomena, i, 780.
action of yeast on glycidic acids, i, 1237.
fission of ring systems, i, 1378.
- Kuhn, R., and G. E. von Grundherr**, influence of acidity on the action of yeast extracts on concentrated solutions of dextrose, i, 203.
- Kuhn, R., and P. Jacob**, mutarotation, ii, 49.
stereochemistry of aromatic compounds; isomerism of the 9-amino-fluorenes, i, 1260, 1404.

- Kuhn, R.**, and **H. H. Schlubach**, behaviour of polymethylated sugars towards emulsin, i, 863.
- Kuhn, R.**, and **T. Wagner-Jauregg**, rate of oxidation of sugars by permanganate, i, 1241.
- Kuhn, R.**, and **A. Wassermann**, "fluorenone hydrate," i, 1398.
- Kuhn, R.**, and **F. Zumstein**, stereochemistry of the tetrahedral carbon atom. II. Configuration of the diaminosuccinic acids, i, 1249.
- Kuhn, R.** See also **B. Emmert**.
- Kuhrmann, F.** See **H. Stobbe**.
- Kuindshi, B. M.** See **A. E. Tschitschibabin**.
- Kulenkampff, H.**, reflection of X-rays in potassium bromide crystals, ii, 1033.
- Kulkarni, D. A.** See **P. S. Varma**.
- Kultashev, N. V.**, and **A. Kudrjavzeva**, catalytic decomposition of acetic acid by wood charcoal, ii, 881.
- Kumagawa, H.** See **R. Willstätter**.
- Kunz, A.** See **C. S. Hudson**.
- Kunz, E.** See **E. Späth**.
- Kunz, R.**, and **K. Sehrbundt**, complex metallic derivatives of chlorophyll. I., i, 1297.
- Kunz, R.**, and **W. Stählinger**, complex metallic compounds of indigotin. III., i, 1318.
- Kunze, J.** See **E. Schill**.
- Kunze, K.** See **D. Vorländer**.
- Kurata, M.** See **S. Komatsu**.
- Kurckmann, E.**, soil acidity, i, 1032.
- Kurnakov, N. S.**, solid solutions of water and oxygen, ii, 767.
singular points in chemical diagrams, ii, 868.
- Kurnakov, N. S.**, and **K. F. Beloglazov**, copper-antimony alloys, ii, 787.
- Kurnakov, N. S.**, and **S. F. Shemtshushni**, equilibrium of the reciprocal salt system, sodium chloride-magnesium sulphate with reference to natural salt solutions, ii, 299.
- Kurtenacker, A.**, and **K. Bittner**, iodometric analysis of a mixture of sulphide, sulphite, and thiosulphate, ii, 239.
determination of sulphur in polysulphides, ii, 433.
determination of polythionic acids in presence of one another, ii, 434.
- Kurtenacker, A.**, and **M. Kauffmann**, polythionates. I. Decomposition of polythionates in aqueous solution, ii, 1189.
polythionates. II. Influence of thio-sulphate and sulphite on the stability of polythionates, ii, 1190.
- Kurtenacker, A.**, and **M. Kauffmann**, polythionates. III. Action of hydrogen sulphide on polythionates, ii, 1190.
polythionates. IV. Action of alkali on polythionates, ii, 1190.
- Kurtenacker, A.**, and **F. Wengefeld**, oxidation of hydroxylamine. II., ii, 224.
catalysis of hydroxylamine, ii, 308.
- Kurtz, H. F.** See **C. A. Kraus**.
- Kusnetzov, S. J.**, significance of calcium for the genus *Citromyces*, i, 746.
- Kutscher, F.** See **O. Flössner**.
- Kutscher, G.** See **K. H. Bauer**.
- Kutter, F.**, colour reaction for lactic acid, ii, 1210.
- Kvapil, K.**, and **A. Němec**, relation between the "absolute air capacity" and degree of acidity of forest soils, i, 221.
- Kylin, E.**, and **B. Silfversvärd**, blood calcium. I. Calcium content of blood. II. Serum calcium during menstruation. III. Blood calcium during hypertonia. IV. Effect on blood calcium of administration of atropine-calcium, i, 852.

L.

- Laar, J. J. van**, structure of benzene, i, 799, 894.
theories of strong electrolytes and their history, ii, 152.
liquid densities at various temperatures, ii, 278.
equation of state of liquids and solids at high and low temperatures, ii, 495.
Van der Waals' equation of state, ii, 647.
simple formula for determining the critical temperature from the coefficient of expansion of the liquid phase, and the cause of its non-applicability for many molten salts, ii, 950.
additivity of boiling points, ii, 1141.
value of \sqrt{a} calculated from the vapour tensions of alkali metals and halides in relation to the additive nature of this quantity, ii, 1141.
- Laar, J. J. van**, and **R. Lorenz**, ratio melting point: critical temperature, ii, 374.
derivation of the fundamental equation from the law of mass action for condensed and heterogeneous systems, ii, 866.
heat of mixture of condensed systems, ii, 870.

- Labauue, L.** See *J. Dupont*.
- Labbé, H., and F. Lavagna,** action of acetoacetic acid on nitrogen metabolism, i, 191.
chemical constitution of crystalline lens of eye under normal and pathological conditions, i, 724.
- Labes, R.,** specific electro-kinetic effects between solid phases and dissolved electrolytes, ii, 796.
- Lachmann, A.,** Beckmann rearrangement, II, i, 678.
- Laenier, A., and P. Gilard,** fusibility and viscosity of glass, ii, 379.
measurement of the surface tension of molten glass, ii, 387.
- Lacroix, A.,** new type of eruptive, mesocratic alkaline rock, ii, 429.
- Lacroix, J.,** electrolytic reduction of *mm'*-dinitrodiphenylsulphone to *mm'*-diaminodiphenylsulphone, i, 156.
- Ladenburg, R.,** inverse Stark effect in sodium vapour, ii, 79.
- Ladenburg, R., and H. Kopfermann,** anomalous electrical double refraction of sodium vapour, ii, 917.
- Laer, J. A. van.** See *L. de Hoop*.
- Lätt, B.,** reactions of *p*-phenylenediamine with formaldehyde and hydrogen peroxide (comparison with the reactions of natural peroxidases), i, 1457.
- La Face, F.,** properties of some ethereal oils in Calabria, i, 564.
- Laffay, J.,** spark spectrum of mercury in the extreme red, ii, 334.
- Laffitte, P.,** propagation of the explosion wave, ii, 135.
- Lafontaine, G. H.,** equilibrium conditions of magnesium carbonate in ammoniacal solutions, ii, 785.
- Lafontaine, L.** See *V. Auger*.
- Lafortune, F.** See *P. Bruylants*.
- Lafuma, H.,** corresponding temperatures of solids, ii, 26.
- Lagatu, H., and L. Maume,** linear relationship between the amounts of phosphoric acid and of nitrogen in the leaves of the adequately nourished vine, i, 756.
- Lagrange, R.** See *J. Lévy*.
- Laing, M. E.,** composition of soap films, ii, 960.
- Lakner, R.** See *M. Kohn*.
- Lamb, A. B., and W. E. Vail,** effect of water and of carbon dioxide on the catalytic oxidations of carbon monoxide and hydrogen by oxygen, ii, 567.
- Lambert, B., and S. F. Gates,** relationships existing between hydrogen and palladium, ii, 785.
- Lambert, R. H., and E. P. Wightman,** automatic recorder for measuring size-frequency distribution of grains, ii, 1194.
- La Mer, V. K.** See *L. E. Holt, jun.*
- Lamparter, W.** See *J. Meisenheimer*.
- Lamy, R.** See *L. Bert*.
- Landa, S.,** new derivatives of pentadecanaldehyde, i, 1038.
- Landau, M.** See *E. Philippi*.
- Landé, A.,** "dashed" and displaced spectral terms, ii, 249.
Zeeman effect in multiplets of higher grade, ii, 340.
- Landrien, P., and H. Blatt,** thermochemical study of triphenylpropargyl alcohol and its derivatives, i, 137.
- Landrien, P.** See also *C. Moureu*.
- Landsberg, G., and A. Predvoditelev,** absorption of light by ammonia, ii, 352.
- Lane, J. H., and L. Eynon,** preparation of Fehling's solution for the volumetric determination of reducing sugars, ii, 445.
- Lane, L. B.,** freezing points of glycerol and its aqueous solutions, ii, 971.
- Lang, H.** See *A. Löwenheim*.
- Lang, L.,** lipoids of the ovaries of cows during the oestrous cycle, i, 457.
- Lang, R.,** iodometric methods based on the formation of cyanogen iodide. II, III, and IV, ii, 597, 713.
iodometric determination of cyanogen compounds, ii, 1009.
- Lang, R. J.,** ultra-violet spark spectra of some elements, ii, 609.
- Lang, R. J., and S. Smith,** doublet separation in C II and Si IV, ii, 829.
- Langdon, G. M.** See *J. W. McBain*.
- Lange, E.,** lattice energies, heats of hydration, and heats of solution, ii, 847.
- Lange, E.** See also *J. Wüst*.
- Lange, F.,** investigations of specific heat at low temperatures, ii, 96.
- Lange, H.,** simple X-ray apparatus for the examination of powdered crystals by the Seemann-Bohlin method, giving higher resolution with shorter exposure, ii, 482.
X-ray spectroscopic examination of some alloys by the Seemann-Bohlin method, ii, 482.
- Lange, Hans.** See *J. Meisenheimer*.
- Lange, Hermann, and M. E. Mayer,** significance of ions in muscular function. VI. Effect of various anions on the formation of phosphoric acid in surviving frog's muscle, i, 729.

- Lange, Hermann, and M. E. Mayer,** narcosis. III. Influence of general narcosis on the chemical processes in the striped muscle of the frog, i, 735.
- Lange, Hermann.** See also *G. Embden*, and *C. Emmrich*.
- Lange, L.,** dielectric constant and molecular association of some liquids, ii, 840.
- Lange, N. A., and L. A. Ward,** determination of small amounts of iodine as iodide and iodate, ii, 598.
- Lange, W.** See *W. Traube*.
- Langedijk, S. L.,** absorption spectra of some ketones, ii, 1116.
- Langedijk, S. L.** See also *J. Böeseken*.
- Langenbeck, W.,** isomerism between pilocarpine and isopilocarpine, i, 151.
degradation of histidine to *L*-aspartic acid, i, 306.
- Langfeldt, E., and J. Holmsen,** excretion of purine derivatives in dogs, i, 1205.
"uricolytic index" of diabetic dogs, i, 1207.
determination of allantoin in presence of uric acid, creatinine, and amino-acids, ii, 1010.
- Langmuir, I., C. G. Found, and A. F. Dittmer,** new type of electric discharge; streamer discharge, ii, 341.
- Langmuir, I., and H. A. Jones,** simple method for quantitative studies of ionisation phenomena in gases, ii, 169.
- Langmuir, I., and K. H. Kingdon,** thermionic effects caused by vapours of alkali metals, ii, 254.
- Lankelma, H. P.** See *L. C. Raiford*.
- Lantz, R., and A. Wahl,** β -naphthaquinone-1-arylimines, i, 820.
action of aromatic amines on naphthaquinonearylimines, i, 820.
arylammonaphtholsulphonic acids, i, 910.
preparation and properties of naphthaquinonearylimines, i, 1159.
- Lantz, R.** See also *Société Anonyme des Matières Colorantes et Produits Chimiques de St. Denis*.
- Laporte, G.,** primed terms in the spectra of the lighter elements, ii, 1104.
- Laporte, O.,** structure of the iron spectrum. II., ii, 4.
- Laporte, O.** See also *W. F. Meggers*.
- Lapparent, J. de,** relations between hydrocarbons and carbonates in silex and phanites, ii, 821.
- Lapschin, M. I.** See *A. E. Tschitschibabin*.
- Lapworth, A.,** induction of alternate polarities, especially in relation to the extent and intensity of transmission, ii, 636.
- Lapworth, A., and E. N. Mottram,** oxidation products of oleic acid. I. Conversion of oleic acid into dihydroxystearic acid and the determination of higher saturated acids in mixed acids from natural sources, i, 1129.
oxidation products of oleic acid. II. Degradation of dihydroxystearic acid, i, 1234.
- Lapworth, A., L. K. Pearson, and E. M. Mottram,** preparation and properties of purified oleic acid and some of its salts, i, 355.
- Lapworth, A.** See also *W. Baker*, *G. N. Burkhardt*, (*Miss*) *L. Higginbotham*, and *I. Kolker*.
- Laqueur, E., and A. Sluyters,** adsorption of poisons by a new plant charcoal "supra-norit," i, 736.
- Laqueur, E.** See also *E. Dingemans*.
- Laquer, F.,** lactic acid content of blood in high altitudes. II. Influence of muscular work, i, 324.
- Lardy, G. C.,** ultra-violet absorption spectra of ketens and of their dimers. I. and II., ii, 87.
- Larsen, E. S.** See *E. V. Shannon*.
- Larson, A. T., and C. A. Black,** concentration of ammonia in a compressed mixture of hydrogen and nitrogen over liquid ammonia, ii, 501.
solubility of mixtures of hydrogen and nitrogen in liquid ammonia, ii, 852.
- Larson, A. T., and F. E. Smith,** synthesis of water over nickel and copper catalysts, ii, 563.
- Larsson, E.,** electrolytic dissociation of dibasic acids. II. Second dissociation constants, ii, 294.
- Lasarev, P.,** kinetics of colloidal processes in the stimulation of tissues, i, 1499.
theory of electrodeless discharge in gases, ii, 1107.
molecular physics. I. Relationship between elastic limit and atomic concentration, ii, 1134.
theory of [solid] solutions, ii, 1144.
- Lasch, F.,** cholesterol in the cerebrospinal fluid, i, 456.
- Lasnitzki, A.** See *P. Rona*.
- Lassé, R.** See *W. A. Roth*.
- Lasseur, P., F. Girardet, and H. Vermelin,** physico-chemical constants of sera. I. Variations of the electrical conductivity with dilution, i, 853.

- Lassieur, A.**, economic anode for rapid electro-analysis, ii, 154.
 electrolytic separation of copper, antimony, and bismuth from lead, ii, 159.
 electrolytic separation of copper, antimony, lead, and tin, ii, 328.
 rapid electroanalysis; separations by graded potentials, ii, 711.
- Lassieur, (Mme.) A.** See **A. Kling**.
- László, D.** See **F. Lieben**.
- László, H. de**, absorption of ultra-violet rays by methyl derivatives of naphthalene, ii, 179.
- Latham, O.**, Folin and Wu's method of blood analysis, i, 1343.
- Latimer, W. M., R. M. Buffington, and H. D. Hoenshel**, hydrogen liquefying cycle and cryostat for the maintenance of low temperatures, ii, 818.
- Latshaw, M.**, simple tangentimeter, ii, 428.
- Latshaw, M., and W. A. Patrick**, rate of oxidation of nitric oxide. I. Method of measuring the velocity of a rapid gaseous reaction, ii, 681.
- Latshaw, M., and L. H. Reyerson**, reducing action of hydrogen adsorbed in silica gel, ii, 412.
- Lattès, (Mme.) J. S.**, separation of the total radiation of radium into groups by absorption in platinum, ii, 465.
 method of analysis by absorption of radioactive radiations, ii, 623.
- Lattey, R. T.**, passage of an alternating current through sulphuric acid, ii, 979.
- Lau, E.**, excitation maxima for spectral lines in the striæ of the positive column of hydrogen, ii, 721.
- Lau, E.** See also **E. Gehrcke**.
- Laubengayer, A. W.** See **R. B. Corey, and L. M. Dennis**.
- Laude**. See **Pariselle**.
- Lauder, P. E., and B. Ali**, nitrogen fixation in the Punjab, i, 1524.
- Laue, M. von, and N. Sen**, calculation of the fall of potential in the ion and electron gas emitted from glowing metals, ii, 7.
- Laun, F.** See **P. Walden**.
- Laurent, (Mlle.) Y.** See **P. Freundler**.
- Laurie, A. P.**, magnetic theory of valency, ii, 16.
 expansion of water while freezing, ii, 762.
- Lavagna, F.** See **H. Labbé**.
- Lavrov, B. A., O. P. Moltschanova, and A. J. Ochotnikova**, efficiency of urea as a source of nitrogen in a young ruminant (kid), i, 464.
- Lawn, L., and C. G. L. Wolf**, early action of insulin in the diabetic, i, 483.
- Lawrence, E. O.**, the photo-electric effect in potassium vapour as a function of the frequency of the light, ii, 831.
- Lawrence, J. V.** See **J. A. Harris**.
- Lawrence, Z. W.** See **J. A. Harris**.
- Lawson, W.** See **E. C. Dodds**.
- Lawson, W. E., and W. O. Scott**, electrolytic modification of the Gutzeit method for determination of arsenic in body-tissues, i, 996.
- Lazier, W. A., and H. Adkins**, dehydrogenation and dehydration of alcohols over a zinc oxide catalyst, i, 878.
- Lazier, W. A.** See also **C. S. Marvel**.
- Lazzarini, G.** See **G. Minunni**.
- Lea, F. M.** See **S. R. Carter**.
- Leake, C. D.**, effect of ethylene anaesthesia on the acid-base balance of blood, i, 862.
- Leavenworth, C. S.** See **H. B. Vickery**.
- Lebeau, P., and P. Marmasse**, determination of carbon dioxide and carbon monoxide, ii, 824.
- Lebeau, P., and M. Picon**, transformation of diamond in a vacuum at high temperatures, ii, 133.
- Lebedev, A.**, mechanism of alcoholic fermentation, i, 204.
- Lebedev, S. V., and E. P. Filonenko**, polymerisation. X. Action of certain silicates on unsaturated compounds, i, 225.
- Lebedev, S. V., G. G. Kobliansky, and A. O. Yakubchik**, relative rates of catalytic hydrogenation of different types of unsaturated compounds. I. Aliphatic ethylenic derivatives, i, 350.
- Lebermann, F.**, simple clinical method for determining small amounts of potassium in blood-serum and other fluids, i, 96.
 simple clinical micro-method for determining sodium in blood-serum, i, 324.
 micro determination of potassium in blood-serum and other fluids, i, 714.
- Le Blanc, M., and M. Kröger**, migration of ions in solid electrolytes, ii, 41, 977.
- Le Blanc, M., and A. Rössler**, dissolution of mixed crystals of (Na,Ag)Cl and Tamman's $n/8$ mol. law, ii, 365.
- Le Breton, E., and C. Kayser**, purine metabolism in *Diabetes insipidus*, i, 610.

- Le Chatelier, H.**, allotropy of glass, ii, 190.
viscosity and allotropy of glass, ii, 280.
theoretical force of explosives, ii, 558.
- Lecher, H.** [with *F. Graf, C. Heuck, K. Köberle, F. Gnädinger*, and *F. Heydeweller*], constitution of thiocarbamide and of thiuronium salts. II., i, 1390.
- Lecher, H.** [with *F. Holschneider*], valency problem of sulphur. VIII., i, 390.
- Lecher, H.** [with *F. Holschneider, K. Köberle, W. Speer*, and *P. Stöcklin*], sulphur phenyl chloride [chlorothiobenzene]. II., i, 390.
- Lecher, H.**, and *F. Graf* [with *F. Gnädinger*], peralkylated guanidines. III., i, 1392.
- Lecher, H.**, and *F. Heydeweller*, constitution of thiocarbamide and of thiuronium salts. III., i, 1392.
- Lecher, H., K. Köberle**, and *P. Stöcklin*, valency problem of sulphur. IX. New class of organic radicals, i, 391.
- Lechner, M.** See *K. von Auwers*.
- Lecomte, J.**, infra-red absorption spectra of alcohols, ii, 351.
infra-red absorption spectra of aldehydes and ketones, ii, 627.
- Lecoq, R.**, variability of the optimum temperature for the diastatic action of germinated barley on cooked and uncooked starchy materials, i, 470.
- Ledbury, W.** See *E. W. Blair*.
- Lederer, F. L.** See *F. Feigl*.
- Ledig, P. G.**, absorption of carbon dioxide and ammonia from gas bubbles, ii, 106.
- Leduc, A.**, molecular association and the gas equation of state, ii, 376.
- Leduc, S.**, action of magnesium *p*-anisyl and *p*-tolyl bromides on camphor, i, 821.
- Lee, S.** See *B. Stuber*.
- Leendertz, G.**, serum proteins, i, 96.
- Lees, N. D.** See *J. A. Aeschlimann*.
- Le Fèvre, A. J.** See *W. C. de Graaff*.
- Leffmann, H.**, and *M. Trumper*, tests for ethyl phthalate, ii, 1008.
- Legagneur, F. S.** See *A. Haller*.
- Legendre, R.**, determination of dissolved carbon dioxide, ii, 714.
- Legg, V. H.**, and *R. V. Wheeler*, plant cuticles. I. Modern plant cuticles; composition of coal, i, 1025.
- Le Guyon, R. F.**, and *R. M. May*, rapid determination of phosphates, ii, 1202.
- Le Heux, J. W.**, permanence of choline solutions in ampoules, i, 374.
- Lehmann, E.** See *C. Râth*.
- Lehmann, F.** See *A. Rosenheim*.
- Lehmann, J. F.**, and *T. H. Osgood*, ionisation produced in air during the complete absorption of slow electrons, ii, 832.
- Lehmstedt, K.**, formation of salts from *g*-oxalaine-4:5-dicarboxylic acid, i, 1103.
- Lehmstedt, K.**, and *O. Zumstein*, determination of nitroamino and nitroimino groups, ii, 1201.
- Lehne, A.**, and *W. Schepmann*, cellulose of jute, i, 518.
- Leibowitz, J.** See *H. Fringsheim*.
- Leide, A.**, *K*-series of X-rays, ii, 457.
- Leineweber, F.** See *R. Kautsky*.
- Leiss, C.**, new spectrum apparatus, monochromator, and quartz spectrograph with crossed prisms to secure highest spectral purity in the region 200 μ to 2 μ , ii, 341.
- Leiter, L.**, metabolism of glyoxalines, i, 1003.
- Leites, S.**, endocrine glands and blood calcium, i, 95.
- Lejeune, G.** See *C. Marie*.
- Lelesz, E.** See *L. Randoin*.
- Lelièvre, J.**, and *Y. Ménager*, application to *Laminaria flexicaulis* of the combustion method of analysis, i, 619.
- Lely, C. W. A.**, structure of the dihydrobenzenes and some related compounds, i, 1396.
- Lemarchand, M.**, occlusion of magnesium [oxalate] by calcium oxalate, ii, 385.
- Lemarchands**, qualitative separation of cobalt, nickel, zinc, and manganese, ii, 242.
- Lematte, L.**, and *L. Beauchamp*, composition of human brain, i, 1487.
- Lemay, P.**, and *L. Jaloustre*, comparative action of bismuth on *Staphylococcus*, *Streptococcus*, and *Bacillus coli*, i, 206.
- Lemay, P.** See also *A. Maubert*.
- Lemmermann, O.**, action of silica in increasing the yield [of plants] in sand cultures with insufficient phosphoric acid, i, 767.
- Lemmermann, O.**, and *H. Wiessmann*, carbon dioxide production in soils, i, 348.
- Lemmermann, O., H. Wiessmann**, and *K. Eckl*, from what depth in the soil can plants usefully obtain nutrients? i, 1029.
- Lemmermann, O., H. Wiessmann**, and *K. Sammet*, action of silica in increasing the yield [of plants], i, 766.
- Lemoigne, M.**, bacterial autolysis; acidification due to the formation of β -hydroxybutyric acid, i, 478.

- Lemoigne, M.**, origin of β -hydroxybutyric acid obtained by microbial processes, i, 867.
chemical mechanism of the principal fermentations of dextrose, i, 1361.
- Lemon, H. B.**, comet tail spectrum and Deslandres' first negative group, ii, 249.
spark spectrum of tungsten in a helium vacuum arc, ii, 454.
spectrum of "nebulium," ii, 1099.
- Lendle, L.**, standardisation of certain glucosides which affect the heart, by oral administration to frogs, i, 1501.
- Lenher, S.** See *I. R. McHaffie*.
- Lenher, V.**, and *C. H. Kao*, preparation of selenium monochloride and monobromide, ii, 426.
[quantitative] separation of selenium and tellurium by sulphur dioxide in hydrochloric acid solution, ii, 434.
preparation of selenic acid and of certain selenates, ii, 817.
separation of selenium and tellurium, ii, 1199.
- Lenher, V.**, and *E. J. Wechter*, selenic acid and the selenates, ii, 815.
- Lenher, V.** See also *C. W. Muehlberger*.
- Lennon, J. J.** See *H. Ryan*.
- Lennox, W. G.**, and *M. F. O'Connor*, uric acid in blood, i, 711.
- Lenoble, E.**, electrolysis of a colloidal solution of hemicellulose, i, 793.
- Lenz, H.**, passage of electrons through photo-electrically active crystals, ii, 920.
electronic conduction in crystals, ii, 1019.
- Léon, A.** See *J. Ranedo*.
- Leonard, C. S.**, synthesis of β -phenylethyl alcohol, i, 913.
- Leonard, C. S.** See also *C. Voegtlin*.
- Leone, P.**, organo-metallic compounds of aluminium. I., i, 529.
organo-metallic compounds of aluminium. III. Action of ammonia and amines, i, 530.
organo-metallic compounds of aluminium. IV. Action of acid chlorides, i, 937.
separation of aliphatic amines from ammonia, ii, 907.
- Leone, P.**, and *A. Braicovic*, organo-metallic compounds of aluminium. II. Action of ketones, i, 677.
- Leone, P.**, and *G. B. Tafuri*, determination of acetaldehyde in the determination of lactic acid, ii, 907.
- Leone, P.** See also *G. Bargellini*.
- Leontovicz, M.**, equilibrium principle of G. N. Lewis, ii, 926.
- Lepeschkin, W. W.**, starch-swelling in living and dead cells, i, 1004.
- Lepouse, H.**, action of sulphuric acid and sulphuric anhydride on acetylene dichlorides, i, 784.
- Lepper, E. H.**, and *C. J. Martin*, micro-method for titrating the bicarbonate in plasma, i, 1201.
- Lepper, E. H.**, and *S. S. Zilva*, hydrogen carbonate of the plasma and hydrogen-ion concentration of the blood of guinea-pigs suffering from scurvy, i, 1208.
- Lerner-Steinberg.** See *H. von Wartenberg*.
- Leroux, P.**, determination of the coefficient of viscosity of water, ii, 1048.
- Lescœur, L.** See *A. Desgrez*.
- Les Établissements Poulenc Frères**, preparation of *p*- β -carbamido- β -acetoxy-*n*-propylaminophenylarsinic acid, i, 601.
- Les Établissements Poulenc Frères, E. Fournau, and A. Madinaveitia**, *p*-dimethylaminomethylphenylarsinic acid, i, 990.
- Les Établissements Poulenc Frères, and C. Oechslin**, preparation of hydroxylated aliphatic arsenic acids, i, 122.
- Leslie, E. H.**, and *A. R. Carr*, vapour pressure of organic solutions and application of Dühring's rule to calculation of equilibrium diagrams, ii, 1050.
- Leslie, E. H.** See also *G. G. Brown*.
- Lespieau, R.**, true acetylenic compounds from mixed magnesium derivatives of acetylene, i, 225.
 $\alpha\beta$ -dihydroxy- $\Delta\gamma$ -butinene, i, 351.
acetylenic derivatives of glycerol, i, 1375.
- Lespieau, R.**, and *C. Prévost*, diacetylene, i, 493.
diacetylene hexabromide, i, 626.
- Lesser, E. J.**, influence of homologous alcohols on sugar formation in the liver of the frog. II., i, 613.
- Lesser, E. J.** See also *E. Bissinger*.
- Lesser, R., E. Kranlpuhl, and S. Sad**, constitution of naphthalene and its derivatives, i, 1424.
- Lessing, R.**, and *M. A. L. Banks*, influence of catalysts on carbonisation, i, 9.
- Lessing, R.** See also *L. Moser*.
- Leuchs, H.**, constitutional formulæ of anthranil and anthroxanic acid, i, 1335.
- Leuchs, H.** [with *K. Taube*], strychnos alkaloids. LXV. Oxidation of Hansen's acid, i, 1314.
- Leuchs, H.**, and *S. Kanao*, strychnos alkaloids. XLIV. The hydrazone of brucinonic acid, i, 61.

- Leuchs, H.**, and **P. Sander**, isomerism of the *N*-carbalkoxy derivatives of dipeptides which contain a β -amino-acid, i, 1248.
- spirans. XII. Preparation of di-benzo- Δ^6 -suberen-1-one-2:2'-spiran, i, 1432.
- Leuchs, H.**, and **K. Winzer**, reaction of 2-benzylhydrindonephenylhydrazone with phenylhydrazine, i, 1281.
- Leulier, A.** See **G. Mourignand**, and **A. Policard**.
- Levaditi, C.**, curative action of basic bismuth 3-acetamido-4-hydroxyphenylarsinate in experimental syphilis, i, 1005.
- Levaditi, C.**, **A. Girard**, and **S. Nicolau**, trypanocidal action of gold and platinum, i, 1117.
- Levaditi, C.**, **S. Nicolau**, **J. Salgue**, and **E. Schoen**, mechanism of the action of bismuth in syphilis, i, 463.
- Levaltier, H.** See **P. Fleury**.
- Levene, P. A.**, configuration of α -amino-hexonic acids and of α -aminohexoses, i, 523.
- phenylhydrazino derivatives of pyrimidines, i, 979.
- configurational relationships of the sugars, hydroxy-acids, amino-acids, and halogen acids, i, 1241.
- Levene, P. A.**, and **H. L. Haller**, sphingosine. V. Synthesis of 1-amino-2-hydroxy-*n*-heptadecane, i, 890.
- configurational relationships between β -hydroxy-acids and α -hydroxy-acids and between the latter and secondary alcohols, i, 1375.
- Levene, P. A.**, and **B. J. C. van der Hoeven**, concentration of vitamin-B. II., i, 1516.
- Levene, P. A.**, and **G. M. Meyer**, monoacetonegalactose [galactose isopropylidene ether], i, 1043.
- Levene, P. A.**, and **L. A. Mikeska**, Walden inversion. III. Oxidation of optically active thiolsuccinic acid and thiolsuccinamic acid to the corresponding sulpho acids, i, 5.
- oxidation of *d*- β -thiolbutane to *d*-butane- β -sulphonic acid; rotations of thio- and sulpho-carboxylic acids and their salts, i, 512.
- Levene, P. A.**, and **M. H. Pfaltz**, racemisation; action of alkali on *d*-alanyl-*d*-alanine anhydride, i, 795.
- action of alkalis on peptides and on ketopiperazines, i, 1474.
- Levene, P. A.**, and **I. P. Rolf**, synthetic lecithins, i, 92.
- Levene, P. A.**, and **I. P. Rolf**, plant phosphatides. I. Lecithin and cephalin of the soya bean, i, 487.
- bromolecithins. I. Fractionation of brominated soya-bean lecithins, i, 1520.
- Levene, P. A.**, and **H. S. Simms**, relation of chemical structure to rate of hydrolysis of peptides. II. Hydrolysis with erepsin, i, 473.
- stereochemistry of α -anhydrotetrahydroxyadipic acids, i, 782.
- lactone formation from mono- and di-carboxylic sugar acids, i, 1380.
- dissociation constants of plant nucleotides and nucleosides and their relation to nucleic acid structure, i, 1478.
- Levene, P. A.**, and **H. Sobotka**, synthetic nucleosides. I. Theophylline pentosides. II. Substituted uracil xylosides, i, 1463.
- Levene, P. A.**, and **R. Ulpts**, condensation of mono-accharides by dilute mineral acid, i, 1042.
- Levi, G. R.**, varying tendency of the principal aromatic nuclei to couple with diazo compounds, i, 436.
- different coupling tendencies of the principal aromatic nuclei with diazo compounds, i, 1186.
- Levi, G. R.**, and **M. Faldino**, reactions of diazo compounds with secondary aromatic amines, i, 171.
- Levi, G. R.**, and **G. Natta**, crystalline structure of perowskite, ii, 1036.
- Levi, G. R.**, and **G. Tacchini**, non-existence of nickel suboxide, ii, 424.
- Levi, G. R.** See also **G. Bruni**.
- Levi, (Miss) M.**, characteristic X-rays from light elements, ii, 456.
- Levi, R. G.** See **F. Zambonini**.
- Levi, T. G.**, reactions of various arylthiocarbamides with sulphur and aromatic amines, i, 445.
- Levina, L.** See **H. Bierry**.
- Levine, S. Z.** See **H. B. Richardson**.
- Levine, V. E.**, Jendrassik reaction for vitamin-B, i, 108, 1220.
- Levinson, S.**, detection of ethyl phthalate, ii, 1008.
- Levschin, W. L.**, polarisation of fluorescence from dye solutions. III., IV., and VI., ii, 13, 629, 1117.
- Levtchenko, V.** See **V. Palladin**.
- Lévy, J.**, and **R. Lagrave**, comparison of migratory tendencies of hydrogen and some acyclic radicals, i, 679.
- Lévy, J.** See also **M. Tiffeneau**.
- Levy-Lajeunesse, S.** See **M. Javillier**.
- Lewcock, W.**, formation of azoaniline-sulphonic acids, i, 597.

- Lewicki, J.** See *J. A. Collazo*.
- Lewis, G. N.**, and *D. F. Smith*, theory of reaction rate, ii, 799.
- Lewis, G. N.** See also *N. W. Taylor*.
- Lewis, H. B.**, metabolism of sulphur. IX. Effect of repeated administration of small amounts of cystine, i, 1354.
- Lewis, H. B.** See also *D. A. McGinty*.
- Lewis, H. F.**, and *S. Shaffer*, decomposition of anthraquinone by heat, i, 45.
- Lewis, H. H.**, *M. Nierenstein*, and *E. M. Rich*, action of diazomethane on some aromatic acyl chlorides. III. Mechanism of the reaction, i, 935.
- Lewis, H. P.**, determination of anthracene in anthraquinone, ii, 74.
- Lewis, J.** See *J. Moir*.
- Lewis, J. E.**, viscosity of liquids containing dissolved gases, ii, 377.
- Lewis, W. C. M.** See *F. Bradley*, and *J. W. Corran*.
- Lewis, W. K.**, and *W. G. Whitman*, principles of gas absorption, ii, 106.
- Lewis, W. L.**, and *H. W. Stiegler*, β -chlorovinylarsines and their derivatives, i, 1470.
- Lewis-Dale, P.**, liquid hydrocarbons obtained in the compression of oil gas, i, 769.
- Lewitsky, M.** See *A. Joffé*.
- Ley, H.**, and *R. Grau* [with *W. Emerich*], dissociation constants of organic complexes, ii, 1159.
- Ley, H.**, and *F. Volbert*, absorption measurement in the ultra-violet by photographic photometry, ii, 78.
- Liana, F.**, transparency of varieties of glass in the infra-red, ii, 357.
- Licht, H.**, action of bacteria on bile acids, i, 478.
- Lichtenecker, K.**, calculation of refractive indices by the logarithmic rule of mixtures, ii, 632.
- Lieb, H.**, storage of cerebrosides in splenomegaly (Gaucher's type), i, 189.
- Lieben, F.**, combination of chloral hydrate with protein, i, 91.
- Lieben, F.**, and *D. László*, iodine absorption of caseinogen, i, 1476.
- Liebl, F.** See *L. Ruzicka*.
- Liebreich, E.**, and *W. Wiederholt*, passivity phenomena and cathodic over-voltage, ii, 44.
- current-potential curves for nickel and aluminium, ii, 404.
- Liebreich, E.** See also *E. Maass*.
- Liempt, J. A. M. van**, hafnium oxide in tungsten filaments, ii, 233.
- Liempt, J. A. M. van**, binary systems, sodium and lithium tungstates, potassium and lithium tungstates, lithium tungstate-tungsten trioxide, sodium tungstate-tungsten trioxide and potassium tungstate-tungsten trioxide, ii, 421.
- electrolytic deposition of tungsten, ii, 694.
- Liempt, J. A. M. van.** See also *W. Geiss*.
- Liepatov, S.**, adsorption, ii, 385.
- kinetics of swelling and shrinking of gels. I. and II., ii, 685, 968.
- adsorption [of alkali from alcoholic solutions by cellulose]. II., ii, 957.
- action of electrolytes on colloidal nitroalizarin, ii, 1059.
- Liepe, J.** See *H. P. Kaufmann*.
- Liepus, T.** See *W. Guertler*.
- Lier, H.** See *P. Karrer*.
- Liesegang, R. E.**, calcium chemistry of teeth, i, 607.
- Lifschitz, I.**, relatively asymmetric synthesis in the case of complex salts of heavy metals, i, 522.
- rotation dispersion. II., ii, 264.
- Lifschütz, I.**, wool-fat. VIII. Instability of wool-fat, i, 327.
- Lignac, G. O. E.**, disturbances of cystine metabolism in children, i, 610.
- Liljestrand, S. H.**, and *D. W. Wilson*, excretion of lactic acid in the urine after muscular exercise, i, 1115.
- Lilley, H. S.** See *C. E. Wood*.
- Linck, G.**, and *W. Becker*, chalk and flint, ii, 820.
- Linck, G.**, and *H. Jung*, X-ray investigation of black ("metallic") phosphorus, ii, 1035.
- Linckh, E.** See *W. Manchot*.
- Lind, S. C.**, and *D. C. Bardwell*, direct synthesis of higher from lower hydrocarbons, i, 493.
- mercury and ionised helium, ii, 1181.
- Lindau, P.**, structure of the second positive group of nitrogen bands, ii, 11, 625.
- Linde, E.**, conductivity of aqueous perchloric acid, ii, 39.
- Lindgren, C. C.** See *J. C. Walker*.
- Lindemann, F. A.**, temperature coefficient of the mobility of ions in liquids, ii, 127.
- Lindemann, H.**, and *W. Wessel*, carbazole, i, 1098.
- Lindenfeld, K.** See *J. Zaleski*.
- Linder, E. G.**, thermo-electric effect in single crystal zinc wires, ii, 1136.
- Linder, G. C.** See *A. Hiller*.

- Linderström-Lang, K.**, the salting-out effect, ii, 30.
 ionisation of proteins, ii, 203.
 is casein a homogeneous substance? ii, 1056.
- Linderström-Lang, K.**, and **S. Kodama**, solubility of casein in hydrochloric acid, ii, 1056.
- Lindet, L.**, coagulation of caseinogen in acid solution in presence of calcium salts, i, 846.
- Lindgren, W.**, gel replacement; a new aspect of metasomatism, ii, 392.
- Lindner, F.** See **Hans Fischer**.
- Lindner, J.**, volumetric determination of carbon and hydrogen in elementary organic analysis, ii, 901.
- Lindner, K.**, and **H. Helwig**, so-called molybdenum dibromide and some of its derivatives, ii, 421.
- Lindow, W.** See **R. Seeliger**.
- Lindsay, R. B.**, quantum numbers of the Bohr orbits in the alkali atoms, ii, 467.
 quantum number relations in series spectra, ii, 915.
- Lindsley, L. C.**, and **L. M. Dennis**, double selenates of thallous selenate and the selenates of bivalent metals, ii, 584.
- Ling, A. R.**, and **D. R. Nanji**, starch. II. Constitution of polymerised amylose, amylopectin, and their derivatives, i, 516.
 starch. III. Nature and genesis of the stable dextrin and of the maltodextrins, i, 516.
 starch. IV. Nature of the amylo-hemicellulose constituent of certain starches, i, 517.
- Ling, A. R.**, **D. R. Nanji**, and **F. J. Paton**, glycogen. I. Nature of yeast glycogen, its preparation, determination, and rôle in yeast metabolism, i, 1011.
- Lingelsheim, A. von**, green colouring matter, related to chlorophyll, from flowers of *Primulaceae*, i, 601.
- Link, K. P.**, effects of the method of desiccation on the carbohydrates of plant tissue, i, 618.
- Linnell, W. H.**, and **W. H. Perkin, jun.**, derivatives of acridone and tetrahydro-carbazole, i, 62.
- Linner, F.** See **A. Zinke**.
- Linsert, O.** See **A. Windaus**.
- Linstead, R. P.** See **G. A. R. Kon**.
- Linton, C. S.**, Voges-Proskauer reaction [for *Bacillus coli aerogenes*], i, 867.
- Lintzel, W.**, metabolism of iron. I. Behaviour of blood pigment in artificial digestion, i, 1482.
- Lions, F., W. H. Perkin, jun.**, and **R. Robinson**, strychnine and berberine. III. Position of the methoxyl groups in brucine, i, 831.
- Liot, A.**, variations in the p_H of solutions of cocaine hydrochloride subjected to sterilisation, i, 842.
- Liotta, D.**, scurvy and the antiscorbutic value of orange and lemon juices, i, 1365.
- Lipman, C. B.**, and **L. J. H. Teakle**, fixation of nitrogen by *Azotobacter* in a displaced solution and in the soil residue therefrom, i, 491.
 symbiosis between *Chlorella* sp. and *Azotobacter chroococcum* and nitrogen fixation, i, 748.
- Lipmann, F.**, and **J. Planelles**, blood-sugar curves after intravenous injection of α -, β -, and $\alpha\beta$ -glucose in rabbits, i, 179.
- Lipp, P.**, pinane, i, 1080.
- Lipp, P.**, and **F. Caspers**, synthesis of 1-aryl-2-pyrrolidones, i, 963.
- Lippmann, E. O. von**, occurrence of a rhamnosan, i, 366.
- Lipschitz, W.**, catalysis of oxido-reductions by blood pigments, ii, 1070.
- Lipschitz, W.**, and **Paul Meyer**, anaerobic production of carbon dioxide by muscle-cells in the presence of hydrogen acceptors, i, 603.
- Lipschitz, W.**, and **J. Osterroth**, pharmacological effects of combined camphor, i, 1005.
- Liquier, (Mlle.) J.**, variation of rotatory power of solutions of asparagine as a function of hydrogen-ion concentration, ii, 743.
- Lisbonne, M.**, activation of pancreatic juice by acidification, i, 615.
- Lissievici-Drăganescu, (Mme.) A.**, fixation of bismuth in the organs after administration of soluble and insoluble salts of the metal, i, 465.
- Lissievici-Drăganescu, (Mme.) A.** See also **S. Drăganescu**.
- Listwa, L.** See **F. Kehrman**.
- Littauer, F.**, decomposition of urea in soil, i, 218.
- Litterscheid, F. M.**, and **H. Löwenheim**, qualitative and quantitative analysis of sodium dithionate, ii, 68.
- Littmann, E. R.**, preparation of 3-nitrophthalic acid, i, 1066.
- Liu, S. H.**, influence of cod-liver oil on the calcium and phosphorus metabolism in tetany, i, 725.
- Livens, G. H.** See **E. L. Davies**.
- Livingston, R. S.**, and **W. C. Bray**, catalytic decomposition of hydrogen peroxide in acid chlorine-chloride solution, ii, 981.

- Ljubitsch, *N.* See *K. Hess*.
 Lochte, *H. L.* See *H. D. Wilde, jun.*
 Locke, *A. P.* See *E. R. Main*.
 Lockrow, *L. L.*, low-voltage arc in oxygen, ii, 1099.
 Locquin, *R.*, and *R. Heilmann*, new bases: carbamides of pyrazolines, i, 837.
 decomposition of pyrazolines by spontaneous oxidation, i, 1185.
 Lodge, *A.*, quantum radiation, ii, 624.
 Lodge, (*Sir*) *O.*, quantum radiation, ii, 465.
 Loeb, *L. B.*, gas ion mobilities, ii, 461.
 ionic mobilities in ethyl ether as a function of pressure, ii, 832.
 Loeb, *L. B.*, and *M. F. Ashley*, ionic mobilities in gaseous mixtures, ii, 7.
 Loeb, *L. F.* See *H. Freundlich*.
 Loeb, *S.* See *G. M. Schwab*.
 Loebenstein, *F.*, swelling-promoting effect of alcohol, ii, 520.
 Löff, *G.* See *M. Kohn*.
 Loehr, *O.* See *K. Brand*.
 Loele, *W.*, naphthol reaction of red blood-corpuscles, i, 1342.
 Loeper, *M.*, *R. Schulmann*, and *J. Tounet*, transformation of calcium oxalate into calcium carbonate in animal tissues, i, 1497.
 Lövenskiöld, *H.* See *H. Wieland*.
 Lövgren, *T.* See *H. von Euler*.
 Loew, *O.*, calcium requirements of algae and fungi, i, 1218.
 Löwenbein, *A.* [with *W. Folberth*], radical dissociation of arylated succinic acid derivatives. I. Radical dissociation of 2:2-dihydroxytetraphenylsuccinodilactones [2:2'-diketo-3:3'-diphenyl-3:3'-dicoumaranyls], i, 552.
 Löwenbein, *A.*, and *W. Folberth*, lactonic-enolic tautomerism of *o*-hydroxydiphenylacetolactone, i, 546.
 Löwenbein, *A.*, and *H. Simonis* [with *H. Lang*, and *W. Jacobus*], enolates of *o*-hydroxydiphenylacetolactone, i, 147.
 Löwenheim, *H.* See *F. M. Litterscheid*.
 Löwensohn, *V.* See *F. Arndt*.
 Löwenstein, *L.*, automatic gas analysis, ii, 154.
 Loewi, *O.* See *H. Häusler*.
 Lohmann, *K.* See *O. Meyerhof*.
 Lohmann, *W.* See *E. Blanck*.
 Lohr, *A.* See *K. von Auwers*.
 Loiseau, *G.* See *G. Abt*.
 Loiseleur, *J.*, mechanism of the therapeutic action of suspensoids, i, 197.
 Loiseleur, *J.* See also *E. Hugouneq.*
 Lomanitz, *S.* See *S. A. Waksman*.
 London, *F.* See *H. Hönl*.
 Long, *C. N. H.* See *K. Furusawa*.
 Long, *E. R.* See *F. B. Seibert*.
 Long, *J. S.* See *W. A. Patrick*.
 Long, *R. G.* See *W. E. Curtis*.
 Long, *W. L.* See *D. W. Wilson*.
 Longchambon, *L.*, polymorphic transformations of silica, ii, 752.
 cristobalite, ii, 1131.
 Longinescu, *G. G.*, and *G. Chaborski*, detection of calcium in the presence of barium and strontium, ii, 1202.
 Longinescu, *G. G.*, and *E. Petrescu*, detection of iron, chromium, and manganese without the use of nitric acid, ii, 1206.
 Loomis, *A. G.* See *J. E. Walters*.
 Lorah, *J. R.* See *H. V. Tartar*.
 Lorber, *L.*, simple micro method for determination of sugar or of reducing substance in blood, i, 852.
 Lorber, *N.* See *A. Zinke*.
 Lorenz, *R.*, and *W. Herz*, thermal expansion of fused salts, ii, 950.
 Lorentz-Zienkowska, *H.* See *K. Jabczyński*.
 Lorenz, *L.* See *K. H. Slotta*.
 Lorenz, *R.*, equilibria between metals and fused salts, ii, 536.
 molten electrolytes, ii, 537.
 Lorenz, *R.*, and *E. Bergheimer*, detection of silicic acid, ii, 600.
 Lorenz, *R.*, *E. Grau*, and *E. Bergheimer*, test for bromine, ii, 597.
 Lorenz, *R.*, and *W. Herz*, relation between the volume of a substance at absolute zero and its critical temperature, ii, 25.
 volume in liquid mixtures, ii, 101.
 relation between the critical temperature and the molecular volume at absolute zero, ii, 185.
 free-space numbers. I., ii, 185.
 boiling point relations for fused salts, ii, 276.
 molecular volume and molecular refraction, ii, 356.
 vapour-pressure curves of salts, ii, 493.
 molecular volume of salts at the m. p., ii, 840.
 Lorenz, *R.*, and *H. Klauer*, theory of electrolytic ions. XXIX. Method of measuring conductivity by the use of an amplifying tube, ii, 541.
 Lorenz, *R.*, and *A. Magnus*, separation of gas mixtures by diffusion, ii, 501.
 Lorenz, *R.*, and *A. Voigt*, conductivity of potassium and sodium chloride in aqueous solution, ii, 871.

- Lorenz, R., and E. Wiedbrauck, influence of temperature on the evolution of gases from an "adsorber," ii, 382.
 adsorption equilibria in presence of two gases, ii, 382.
 influence of rate of flow on the adsorption of gases, ii, 507.
- Lorenz, R. See also J. J. van Laar.
- Lorenz, V. See W. Eller.
- Loriette, P. See M. Marquoyrol.
- Loring, F. H., valency relations: an element of atomic number zero with an atomic weight of unity, ii, 841.
- Loring, F. H., and J. G. F. Druce, eka-cæsium, ii, 1124.
 eka-cæsium and eka-iodine, ii, 1124.
- Loris, K. See F. Jirsa.
- Lormand, C. See M. Francois.
- Lorrimer, F. R., derivatives of acenaphthene, i, 672.
- Lošan, J., ammoniation of ions in aqueous solutions, ii, 654.
- Losana, L., ferric acid and ferrates, ii, 1088.
- Lotte, P. See C. Moureu.
- Lotter, P. See F. Fichter.
- Lottermoser, A. [with F. Friedrich, H. M. Hübner, and A. Szabó], physico-chemical analysis of oxide sols, ii, 521.
- Lottermoser, A., and M. Grützner, reactions in the lead accumulator, ii, 312.
- Lottermoser, A., W. Seifert, and W. Forstmann, silver iodide hydrosol; method of formation of hydrosols and gels. IV., ii, 514.
- Lovell, W. G. See R. T. Haslam.
- Lovtschinovskaja, E. See V. Palladin.
- Lowe, G. M. See F. D. Farrow.
- Lowe, P., and D. C. Rose, intensities in the argon spectrum, ii, 452.
- Lowery, H., pole lines occurring in the interrupted arc spectra of silver, gold, and copper, ii, 4.
 broadening of lines in arc spectra and the Stark effect, ii, 614.
- Lowry, C. D., jun. See R. Willstätter.
- Lowry, H. H., and S. O. Morgan, vapour pressures of Rochelle salt, the hydrates of sodium and potassium tartrates, and their saturated solutions, ii, 26.
 adsorption of gases by graphitic carbon, ii, 1053.
- Lowry, T. M., dynamic isomerism. XVIII. Mechanism of mutarotation, i, 886.
 electronic theory of valency. IV. Origin of acidity, ii, 15.
 graphitic conduction in conjugated chains of carbon atoms, ii, 299.
- Lowry, T. M., and J. O. Cutter, rotatory dispersive power of organic compounds. XV. Borneol, camphor, and camphorquinone; origin of complex and anomalous rotatory dispersion, ii, 356.
- Lowry, T. M., and E. M. Richards, dynamic isomerism. XIX. Arrest of mutarotation of tetramethylglucose, i, 886.
 rotatory dispersive power of organic compounds. XIII. Significance of simple rotatory dispersion; rotatory dispersion of camphorquinone and of sucrose, ii, 265.
- Lowry, T. M. See also H. Burgess, J. O. Cutter, I. J. Faulkner, and E. M. Richards.
- Lozinsky, E. See R. L. Stehle.
- Lubimenko, V., quantity of chlorophyll in marine algae, i, 216.
- Lublin, A., ratio of the amounts of acetone and of β -hydroxybutyric acid excreted in the urine, i, 459.
- Lubman, N. See P. Petrenko-Kritschenko.
- Lucarini, C. See R. R. Read.
- Lucas, H. J., and A. Y. Jameson, electron displacement in carbon compounds. I. Electron displacement versus alternate polarity in aliphatic compounds, i, 2.
- Lucas, H. J., and H. W. Moyse, electron displacement in carbon compounds. II. Hydrogen bromide and $\Delta\beta$ -pentene, i, 770.
- Lucas, H. J., T. P. Simpson, and J. M. Carter, electron displacement in carbon compounds. III. Polarity differences in carbon-hydrogen unions, i, 769.
- Lucas, R., influence of solvents on rotatory power, ii, 742.
- Lucas, R. See also A. Haller.
- Lucasse, W. W., activity coefficients and transference numbers of the alkaline-earth chlorides, ii, 399.
- Luce, E., migration of the α -naphthyl radical, i, 263.
- Luce, E. M., influence of sunlight on the growth-promoting and antirachitic properties of cow's milk, i, 211.
- Luce, E. M., and (Mrs.) I. S. Maclean, presence of vitamin-A in yeast fat, i, 483.
- Luciano, M., crystallographic investigation of diopside from Saulera (Val d'Ala), ii, 1037.
- Luck, J. M., and T. N. Seth, gastric urease, i, 200.
 physiology of gastric urease, i, 1010.
- Luck, J. M. See also T. N. Seth.

- Ludewig, P.**, and **F. Reuther**, coloration of rock salt by radium, ii, 21.
- Ludlam, A. E.** See **S. Chapman**.
- Ludlam, E. B.**, Budde effect in bromine, ii, 470.
electron affinity of the halogens, ii, 1018.
- Ludlam, E. B.**, and **W. West**, ultra-violet emission spectra of the halogens, ii, 350.
- Ludlam, E. B.** See also **W. West**.
- Ludloff, H.**, terms of the mercury hydride bands, ii, 1113.
- Ludwig, H.** See **K. Brand**.
- Ludwig, O.** See **A. Rippel**.
- Lüde, K. von.** See **R. Suhrmann**.
- Lüdtke, M.**, proteins. IV. Hydrolytic fission of 2:5-diketopiperazines and dipeptides, i, 450.
oxidation of 2:5-diketopiperazines by hydrogen peroxide, i, 837.
- Lüers, H.**, and **G. Nowak**, zymocasein from yeast, i, 338.
- Lüers, H.**, and **E. Sellner**, purification of malt amylase, i, 737.
- Lüppo-Cramer**, [photographic] ripening process. III., IV., and V., ii, 574, 810, 986.
history and theory of the latent image. II. and III., ii, 575, 811.
silver in photography, ii, 985.
- Lüthy, M.** See **H. Staudinger**.
- Lütkemeyer, H.** See **M. Bodenstein**.
- Luff, G.**, separation of cadmium from zinc by means of hydrogen sulphide, ii, 159.
oxalate separation of calcium and magnesium, ii, 438.
use of potassium ferrocyanide in gravimetric analysis; [determination of cadmium], ii, 826.
- Lukacs, M.** See **H. Kappen**.
- Lukas, J.**, and **A. Jilek**, determination of copper by rapid electrolysis in the presence of tin, antimony, and lead, ii, 241.
- Lukas, J.** See also **A. Jilek**.
- Lukes, R.** See **E. Votoček**.
- Lukirsky, P.**, **S. Sčukarev**, and **O. Trapesnikov**, electrolysis of crystals ii, 369.
- Lumière, A.**, regularity of lactic fermentation in the presence of mercuric chloride, i, 106.
new chemical anti-coagulants, i, 606.
- Lumière, A.**, and **R. Courjon**, influence of time of coagulation of blood on toxicity of serum, i, 853.
- Lumière, A.**, and **H. Couturier**, anti-coagulating action of zinc salts, i, 717.
- Lumière, A.**, **L. Lumière**, and **A. Seewetz**, fluorescence of the principal photographic developers, i, 1060.
- Lumière, L.** See **A. Lumière**.
- Lund, E. J.**, electrodes for the measurement of small bioelectric potentials, ii, 897.
- Lund, G. S.**, and **C. G. L. Wolf**, glucose [dextrose] content of normal urine, i, 1205.
- Lund, W.** See **O. Mumm**.
- Lunde, G.**, crystal structure of thallium chloride and thallium bromide, ii, 941.
- Lundegårdh, H.**, and **V. Morávek**, absorption of salts by plants. I. Mutual influence of ions, i, 214.
- Lundquist, O.**, $K\beta$ lines in the X-ray emission spectra of phosphorus and potassium, ii, 1014.
- Lundsgaard, C.**, and **S. A. Holbøll**, effect of insulin and muscle-tissue on dextrose *in vitro*, i, 208.
nature of dextrose in the blood of healthy men, i, 1206.
nature of dextrose in the blood of diabetics before and after injection of insulin, i, 1207.
nature of dextrose in different physiological fluids, i, 1207.
carbohydrate metabolism. II. Mutation of β -glucose. III. Nature of the dextrose of the blood of normal individuals. IV. Nature of the dextrose of the blood of patients with diabetes mellitus and with benign glycosuria. V. Form of dextrose in body fluids, i, 1494.
- Lunn, E. G.** See **T. R. Hogness**.
- Lunn, J. W.** See **R. Campbell**.
- Lunt, J.**, spectrum of germanium, ii, 611.
large line-displacement in the spectra of germanium and chlorine under different conditions of temperature, ii, 611.
- Lunt, R. W.**, interaction of carbon dioxide and hydrogen in the corona due to alternating currents of high frequency, ii, 579.
behaviour of hydrogen in the discharge due to alternating electric fields of high frequency, ii, 616.
- Lunt, R. W.** See also **M. Crespi**.
- Lupton, H.** See **K. Furusawa**.
- Lush, E. J.**, kinetics of hydrogenation. II. Stationary films, ii, 411.
- Lutz, R. E.**, determination of small quantities of zinc in materials of organic nature; microchemical method based on the fluorescence of zinc salts with urobilin, ii, 825.

- Lutz, R. E.** See also *J. B. Conant*.
- L'vov, S.**, dependence of the reduction processes of yeast on fermentation, i, 1508.
fermentation of mannitol by yeasts, i, 1509.
- Lyman, T.**, and *F. A. Saunders*, spectra of neon and argon in the extreme ultra-violet, ii, 911.
- Lynch, D. F. J.** See *J. A. Ambler*.
- Lyon, N.**, electrical double refraction of gases, ii, 266.
- Lyon, T. L.**, *J. A. Bizzell*, and *B. D. Wilson*, accumulation of nitrates in soil following the growth of clover or lucerne, i, 347.
- Lyons, E.**, mercury derivatives of some imides, i, 645.
- Lythgoe, R. J.**, and *J. R. Pereira*, muscular exercise, lactic acid, and the supply and utilisation of oxygen. XI. Pulse rate and oxygen intake during the early stages of recovery from severe exercise, i, 1341.
- M.**
- Maass, E.**, and *E. Liebreich*, corrosion of metals, ii, 140.
- Maass, E.**, and *W. Wiederholt*, corrosion phenomena in aluminium, ii, 560.
- Maass, O.**, and *P. G. Hiebert*, properties of pure hydrogen peroxide. V. Vapour pressure, ii, 188.
- Maass, O.**, and *D. M. Morrison*, effect of molecular attractions on the total pressure of a gas, ii, 590.
- Maass, O.**, and *L. J. Waldbauer*, specific heats and latent heats of fusion of ice and of several organic compounds, ii, 492.
- Maass, O.**, and *C. H. Wright*, molecular attraction and velocity of reactions at low temperatures of unsaturated hydrocarbons, ii, 214.
- Macallum, A. B.** See *D. W. MacKenzie*.
- Macallum, A. D.**, and *G. S. Whitby*, molecular refraction of natural and of methyl-rubber, ii, 478.
- McAulay, J.** See *P. Debye*.
- McBain, J. W.**, and *G. M. Langdon*, system, sodium palmitate-sodium chloride-water, ii, 537.
- McBain, J. W.** See also *A. M. Bakr*.
- Macbeth, A. K.**, and *J. Craik*, condensation reactions of oxindole and 3-oxythionaphthen, i, 1315.
- Macbeth, A. K.**, and *D. Traill*, labile nature of the halogen atom in organic compounds. X. Action of hydrazine hydrate on the halogen derivatives of α -nitro-fatty acids, i, 628.
labile nature of the halogen atom in organic compounds. XI. Halogenation of ethyl acetylsuccinate, i, 782.
- Macbeth, A. K.** See also *J. Craik*, and *E. L. Hirst*.
- MacCallum, P.** See *W. O. Kermack*.
- McCallum, S. P.**, and *C. M. Focken*, electrical properties of neon, hydrogen, and nitrogen, ii, 641.
- McCance, R. A.**, influence of oxygen on the production of urea by enzymes of the liver and spleen, i, 472.
- McCance, R. A.** See also *M. E. Robinson*.
- McCandless, J. M.**, and *J. Q. Burton*, sources of error in the determination of phosphoric acid by the molybdate-magnesia method, ii, 157.
- McClelland, N. P.** See *J. A. Aeschlimann*.
- McClosky, W. T.** See *M. I. Smith*.
- McCluskey, K. L.**, modification of Bloor's method for the determination of blood phosphates, i, 605.
- McCollum, E. V.**, *N. Simmonds*, *J. E. Becker*, and *R. W. Bunting*, effect of addition of fluorine to the diet of the rat on the quality of the teeth, i, 861.
- McCollum, E. V.**, *N. Simmonds*, *J. E. Becker*, and *P. G. Shipley*, experimental rickets. XXVI. Diet of purified foodstuffs for use in vitamin-D studies, i, 1366.
- McCombie, H.**, *H. M. Roberts*, and *H. A. Scarborough*, velocity of reaction in mixed solvents. VIII. Velocity of formation of certain quaternary ammonium salts, ii, 554.
- McCombie, H.** See also *W. I. Jones*.
- McCool, M. M.**, and *A. W. Weidemann*, moisture relationships of soils, i, 1527.
- McCorkle, P.**, anhyseretic magnetostrictive effects in iron, nickel, and cobalt, ii, 487.
- McCormick, N. A.**, insulin from fish. VII., i, 754.
- McCormick, N. A.**, and *J. J. R. Macleod*, effect on the blood-sugar of fish of various conditions, including removal of the principal islets (isletectomy), i, 856.
- McCormick, N. A.**, and *E. C. Noble*, yield of insulin from fish, i, 754.
- MacCorquodale, D. W.** See *C. S. Marvel*.

- McCulloch, L.**, rapid corrosion of metals by acids within capillaries, ii, 879.
- McCurdy, W. H.**, *L. A. Turner*, and *K. T. Compton*, excited atoms in the striated glow discharge in mercury vapour, ii, 1102.
- McCurdy, W. H.** See also *L. A. Turner*.
- MacDougall, D. T.**, and *B. L. Clarke*, hydrophilic effect of ions on agar and protoplasmic components, ii, 1156.
- McDowall, F. H.**, constituents of *Mycoporum laetum*, Forst. (the "ngaio"). I., i, 1521.
- McDowall, F. H.**, and *H. J. Finlay*, essential oil of the "rimu" (*Dacrydium cupressinum*), i, 418.
- McElroy, C. H.** See *V. G. Heller*.
- McEnergy, E. I.**, *A. C. Ivy*, and *C. E. Pechous*, presence of isoagglutinins in the blood of dogs, i, 1344.
- McGeorge, W. T.**, soil analysis, i, 348.
- McGill, W. J.** See *M. Gomborg*.
- McGinty, D. A.**, *H. B. Lewis*, and *C. S. Marvel*, amino-acid synthesis in the animal organism; availability of caproic [*n*-hexoic] acid derivatives for synthesis of lysine, i, 100.
- McGrath, P. C.** See *G. L. Clark*.
- McHaffie, I. R.**, and *S. Lenher*, adsorption of water from the gas phase on plane surfaces of glass and platinum, ii, 854.
- McHaffie, I. R.** See also *J. W. Shipley*.
- McHargue, J. S.**, occurrence of copper, manganese, zinc, nickel, and cobalt in soils, plants, and animals, and their possible functions as vital factors, i, 1023.
- association of copper with substances containing the fat-soluble vitamin-A, i, 1515.
- Machebeuf, M.** See *G. Bertrand*.
- Macht, D. I.**, *A. Grollman*, and *O. R. Hyndman*, relation between the chemical structure of bile acids and their effects on animal and plant tissues, i, 1355.
- McIlvaine, L.** See *L. S. Weatherby*.
- MacInnes, D. A.**, transference numbers of solutions of mixed chlorides, ii, 872.
- MacInnes, D. A.**, and *T. B. Brighton*, transport numbers by the moving-boundary method. III. Novel form of apparatus, ii, 542.
- MacInnes, D. A.** See also *E. R. Smith*.
- MacIntyre, G. H.** See *A. F. O. Germann*.
- MacIntyre, W. H.**, and *W. M. Shaw*, ternary systems, $\text{CaO-Fe}_2\text{O}_3\text{-CaSO}_4$ and $\text{CaO-Al}_2\text{O}_3\text{-CaSO}_4$, as explaining the retention of sulphates by heavily-limed soil, i, 490.
- Mack, E.** See *T. H. Swan*.
- Mack, E., jun.**, average cross-sectional areas of molecules by gaseous diffusion methods, ii, 1124.
- Mack, E., jun.** See also *R. J. Havighurst*.
- McKeehan, L. W.**, theory of ferromagnetism, ii, 944.
- McKeehan, L. W.** See also *O. E. Buckley*.
- McKenzie, A.**, and *W. S. Dennler*, elimination of the amino group of tertiary amino-alcohols. II. The semipinacolic deamination of β -hydroxy- α - β -diphenyl- β -naphthylethyl amine, i, 26.
- McKenzie, A.**, and *R. Roger*, dehydration of the optically active methyl- and ethyl-hydrobenzoins, i, 25.
- McKenzie, A.**, and *I. A. Smith*, asymmetric catalytic racemisation, i, 822.
- McKenzie, A.**, and *R. C. Strathern*, reactions of displacement in the tropic acid group. I., i, 401.
- McKenzie, A.**, and *T. M. A. Tudhope*, Walden inversion. XI. Substitution by halogen of the hydroxyl group of secondary octyl alcohols, i, 226.
- McKenzie, A.**, and *G. O. Wills*, conversion of amino-acids into tertiary amino-alcohols, i, 395.
- McKenzie, D. W.**, and *M. I. Seng* [with *A. B. Macallum*], tuberculosis and calcification of prostate, i, 330.
- Mackenzie, G. I.** See *C. G. Barkla*.
- Mackenzie, G. M.** See *L. Bauman*.
- McKeown, A.** See *R. O. Griffith*.
- McKinley, E. B.** See *N. F. Fisher*.
- McKinney, A. E.** See *F. Wilcoxon*.
- McLaughlin, H. M.**, simple automatic mercury pump, ii, 428.
- McLaughlin, H. M.** See also *W. D. Harkins*.
- McLay, A. B.** See *J. C. McLennan*.
- McLean, F. T.** See *F. R. Pember*.
- McLean, H. C.** See *J. S. Joffe*.
- McLean, (Mrs.) I. S.**, and *D. Hoffert*, carbohydrate and fat metabolism of yeast. II. Influence of phosphates on the storage of fat and carbohydrate in the cell, i, 204.
- McLean, (Mrs.) I. S.** See also *E. M. Luce*.
- McLean, W.**, and *G. W. Robinson*, determination of ammoniacal nitrogen in soils, i, 224.

- McLennan, J. C.**, luminescence of solid nitrogen and argon, ii, 88.
auroral green line, ii, 249, 339.
- McLennan, J. C.**, and **A. B. McLay**, series spectrum of gold, ii, 913.
- McLennan, J. C.**, and **W. W. Shaver**, series, ultra-violet, and infra-red spectra of silicon, ii, 452.
- McLennan, J. C.**, and **G. M. Shrum**, secondary spectrum of hydrogen at very low temperatures, ii, 468.
origin of the auroral green line 5577 Å., and other spectra associated with the aurora borealis, ii, 723.
- McLennan, J. C.**, **J. F. T. Young**, and **A. B. McLay**, absorption and series spectra of tin, ii, 454.
absorption and series spectra of lead, ii, 455.
- Macleod, D. B.**, viscosity of binary mixtures, ii, 280.
relation between the viscosities of liquids and their molecular weights, ii, 498.
physical properties of water, ii, 498.
kinetic theory of evaporation, ii, 784.
viscosities of liquids at their b. p., ii, 1049.
- Macleod, F. L.** See **H. C. Sherman**.
- Macleod, J. J. R.** See **G. S. Eadie**, and **N. A. McCormick**.
- McLeod, J. W.**, and **J. Gordon**, production of peroxide by anaerobes in presence of oxygen, i, 1362.
relations between the reducing powers of bacteria and their capacity for forming peroxide, i, 1362.
- McMath, A. M.** See **J. Read**.
- McMillan, A.**, and **W. C. Ferguson**, electrometric titrations; use of titanous chloride for ore analysis, ii, 441.
- McMillan, A.** See also **T. S. Patterson**.
- McMillin, H. R.**, automatic burette and flask for standard alkali solutions, ii, 711.
- McMullin, R. B.** See **M. C. Taylor**.
- McQuarrie, W. C.**, spectra of silicon and aluminium, ii, 1013.
- McTaggart, H. A.**, property of very small bubbles of gas in water, ii, 509.
- McVicker, W. H.**, **J. K. Marsh**, and **A. W. Stewart**, Tesla-luminescence spectra. IV. Hydrocarbons containing a single benzene nucleus, ii, 12.
new variety of spectra, ii, 86.
Tesla-luminescence spectra. V. Polynuclear hydrocarbons, ii, 630.
- Macy, R.**, ternary system, silver perchlorate, pyridine, and water, ii, 536.
- Maddison, R. E. W.** See **A. J. Allmand**, and **R. G. Franklin**.
- Madelung, W.**, coloured salts of the di- and tri-phenylmethane series, i, 1459.
- Madinaveitia, A.**, and **I. Ribas**, isomerism of the diphenylsuccinic acids, i, 671.
- Madinaveitia, A.** See also **Les Établissements Poulenc Frères**.
- Madsen, E.** See **G. von Hevesy**.
- Madsen, S. T.**, distribution of the residual nitrogen in the organism, i, 718.
- Maeser, S.** See **T. D. Stewart**.
- Magath, T. B.** See **J. L. Bollmann**.
- Magee, H. E.** See **J. B. Orr**.
- Magidson, O. I.**, closure of the fluorene ring in the di- α -naphthylmethane series, i, 384.
- Magidson, O. I.**, and **G. Menschikov**, iodination of 2-aminopyridine, i, 301.
- Magistad, O. C.**, aluminium content of the soil solution and its relation to soil reaction and plant growth, i, 1371.
- Magnin, G.**, destruction of organic matter by hydrogen peroxide; its use in toxicology, ii, 594.
toxicological detection of hydrocyanic acid by Chelle's reaction, ii, 607.
- Magnus, A.**, and **A. Hodler**, atomic heat of silver at high temperatures, ii, 95.
- Magnus, A.** See also **R. Lorenz**.
- Magnus-Levy, A.**, cystinuria, i, 610.
- Magnuson, H. P.** See **W. M. Gibbs**.
- Mahnert, P.** See **M. Volmer**.
- Mahood, S. A.**, and **C. R. Harris**, chemistry of furfuraldehyde; preparation of the furan analogue of benzoflavine or dimethyldiaminofurylacridine hydrochloride, i, 302.
- Maier, C. G.**, vapour pressures of common metallic chlorides and a static method for high temperatures, ii, 850.
- Maige, A.**, regeneration of amylogenous excitability of plastids during hydrolysis, i, 486.
carbohydrate utilisation by the cell and variations in the nucleus and nucleolus, i, 1493.
- Maignon, F.**, electrolysis of enzymes and their phosphoric acid and silica content, i, 1116.
- Maiho, P.** See **E. Rupp**.
- Mailhe, A.**, decomposition of acids in the presence of metallic chlorides, i, 503.
catalytic decomposition of acid chlorides, i, 629.

- Mailhe, A.**, separation of carbon monoxide in organic molecules, i, 1232.
- Main, E. R.**, and **A. P. Locke**, determination of small amounts of protein nitrogen, i, 997.
- Majima, R.**, and **T. Hoshino**, synthetic experiments in the indole group. VI. New synthesis of 3-aminoalkylindoles, i, 1450.
- Majima, R.**, and **M. Kotake**, synthetic experiments in the indole group. V. Synthesis of 3- β -amino- α -hydroxyethylindole, i, 1450.
- Majima, R.**, and **H. Suginome**, aconite alkaloids. IV. Oxonitin and some new derivatives thereof, i, 1447.
- Major, R. H.**, and **R. C. Davis**, high blood-sugar with absence of sugar in the urine in diabetes treated with insulin, i, 1491.
- Major, R. T.** See **C. S. Hamilton**.
- Majumder, K.**, and **N. K. Swe**, absorption spectrum of aluminium, ii, 338.
- Makamiya, Z.** See **K. Takabashi**.
- Maki, S.**, skin secretion of *Triton teniatus* (small water newt), i, 327.
- Malandkar, M. A.**, chemical constitution of the gum from *Boswellia serrata*, i, 1438.
- Malandkar, M. A.** See also **G. J. Fowler**.
- Malchow, W.** See **H. Freundlich**.
- Malcolm, A. M.**, magnetic quality of pure nickel, ii, 371.
- Mali, S.**, and **J. Ghosh**, vapour pressure and chemical constant of formaldehyde, i, 116.
- Mali, S. B.**, calculation of the vapour pressure of a solution of a non-volatile solute, ii, 850.
- Malik, K. S.** See **N. A. Yajnik**.
- Malinowski, A. E.**, ionisation in the wave of propagation of explosions, ii, 132.
- Malisheva, V. T.** See **A. Kablukov**.
- Malkin, T.**, and **R. Robinson**, phenyl benzyl diketone and some derivatives, i, 559.
- synthesis of pyrylium salts of anthocyanidin type. VIII. Synthesis of pelargonidin chloride and of galanginidin chloride, i, 827.
- Malleman, R. de**, electrical birefringence of limonene, ii, 642.
- calculation of rotatory power from molecular structure, ii, 840.
- calculation of rotatory power of a tetrahedral molecule, ii, 935.
- theory of rotatory polarisation, ii, 1029.
- diffusion of light by active and inactive molecules, ii, 1030.
- Malm, I. L.** See **F. B. Dains**.
- Malquori, G.**, electrolytic preparation of ozone with an alternating superposed on a continuous current, ii, 62.
- mixed basic silver-copper salts, ii, 696.
- thermal behaviour of hydrated barium aluminate, ii, 813.
- Malquori, G.** See also **N. Parravano**.
- Malyoth, G.** See **E. Schmidt**.
- Mameli, E.**, and **E. Filippi**, hyperthermic action of the phenoxyacetic acids, i, 466.
- Manchot, W.**, method of determining the solubility of gases in liquids, ii, 233.
- Manchot, W.** [with **H. Haunschild**], dissociation equilibria of compounds of ferrous salts with nitric oxide, ii, 298.
- Manchot, W.** [with **M. Jahrstorper**, and **H. Zepfer**], gas solubility and hydration, ii, 282.
- Manchot, W.**, and **H. Gall**, dehydrogenation and autoxidation and their mutual relationship, i, 561.
- metal-carbon monoxide salts. IX. Compound of carbon monoxide with iridium chloride, ii, 232.
- compounds of gold with carbon monoxide, ii, 1182.
- Manchot, W.**, and **K. König**, compounds of carbon monoxide with ruthenium salts, ii, 149.
- compounds of carbon monoxide with osmium chloride, ii, 232.
- compound of rhodium with carbon monoxide, ii, 1193.
- Manchot, W.**, and **E. Linckh**, preparation of crystalline compounds of ferrous salts and nitric oxide. III., ii, 317.
- Manchot, W.**, and **F. Oberhauser** [with **H. Wettstein**], bromometric determinations, ii, 161.
- Manchot, W.**, and **A. Wirzmüller**, preparation of selenic acid, i, 319.
- Manchot, W.** See also **H. Gall**.
- Mandell, W.**, and **J. West**, temperature gradient in gases at various pressures, ii, 99.
- Manegold, E.**, electrolyte threads. I. Behaviour of electrolyte threads and their deflection in a magnetic field, ii, 873.
- Maneval, R. V.** See **F. B. Dains**.
- Manfredi, M.** See **M. Francesconi**.
- Mange, C. E.**, and **O. Ehler**, solubilities of vanillin, ii, 119.
- Mangold, E.**, digestion of carbohydrates and proteins in pigeons and hens, and the penetration of digestive enzymes through plant cell membranes, i, 615.

- Manière, (Mme.) Y.** See **A. Boutaric.**
- Manley, J. J.,** mercury and helium, ii, 57.
mercury helide, ii, 314, 696.
- Mann, A.,** and **P. M. Paulson,** electrochemical oxidation of toluene to benzaldehyde, i, 556.
- Mann, C. E. T.,** antagonism between dyes and inorganic salts in their absorption by storage tissue, ii, 35.
- Mann, F. C.** See **J. L. Bollmann.**
- Mann, F. G.,** and (*Sir*) **W. J. Pope,** $\alpha\beta\gamma$ -triaminopropane and its complex metallic compounds, i, 373.
- Mannich, C.,** preparation of β -ketobases, i, 374.
- Mannich, C.,** and **K. Sutter,** lactone formation and intramolecular alkylation with brominated aminomethylallylmalonic acids, i, 1037.
- Manning, A. B.,** gelatin. V. Properties of a gelatin purified by flocculation in an electric field, i, 90.
- Manojev, D. P.** See **N. W. Kondyrev.**
- Mansfield, G.,** and **E. Geiger,** mechanism of action of insulin, i, 1016.
- Maplethorpe, C. W.,** and **N. Evers,** picrates of the opium alkaloids, i, 1166.
- Maracineanu, (Mlle.) S.,** effect of the sun on radioactivity, ii, 348.
- Marano, C.** See **S. Klosky.**
- Marberger, R.** See **M. Kohn.**
- Marbeukel, E.** See **H. Scheibler.**
- Marcelin, A.,** superficial solutions and the law of Gay-Lussac, ii, 772.
- March, A.,** continuous X-ray spectrum and Planck's radiation law, ii, 614.
- Marchal, (Mlle.) G.,** thermal decomposition of metallic sulphates. I. and II., ii, 870, 1162.
- Marchal, (Mlle.) G.** See also **C. Matignon.**
- Marchet, A.,** amphibolites from Austria, ii, 997.
- Marchlewski, L.,** chemical parent of blood pigment and chlorophyll, i, 604.
- Marchlewski, L.,** and **A. Moroz,** ultraviolet absorption spectra of organic compounds. VI., ii, 353.
- Marchlewski, L.** See also **E. Kerpianka.**
- Markwald, W.,** and **H. Gebhardt,** gravimetric determination of zinc by means of cyanamide, ii, 1002.
- Marcus, E.** See **E. Günzel.**
- Marcusson, J.,** formation of fatty acids from "protoparaffin," i, 349.
polymerisation of fatty oils. III. and IV., i, 356, 1234.
- Marcusson, J.,** structure of humic acids and coal, i, 793.
- Mardles, E. W. J.,** dissolution of substances in mixed liquids with special reference to colloids, ii, 34.
- Mareeuw, W. P. H. van den D.,** identification of *Secale cornutum* preparations; [detection of ergotinine], ii, 1010.
- Margosches, B. M., L. Friedmann,** and **W. Tschörner,** chemical nature of fats. I. Iodine super-value of fatty oils and unsaturated fatty acids, i, 629.
- Margosches, B. M., L. Friedmann, E. Scheinost,** and **W. Tschörner,** chemical nature of fats. II. Iodine super-number of fatty oils and unsaturated fatty acids of similar iodine number, i, 883.
- Margosches, B. M.,** and **E. Scheinost,** replacement of monohydric by dihydric phenols in the kjeldahlisation of nitrates, ii, 1094.
- Margosches, B. M.,** and **E. Scheinost** [with **M. Frischer**], remarkable behaviour of alkali sulphate in the kjeldahlisation of the nitroanilines, ii, 1200.
- Margosches, B. M.,** and **E. Scheinost** [with **V. Woyнар**], quantitative kjeldahlisation of nitrates with phenolsulphonic acid and potassium sulphate, ii, 1094.
- Margulies, C.** See **L. J. Curtman.**
- Margulies, O.,** preparation of aromatic carbonyl compounds containing tervalent arsenic, i, 447.
preparation of derivatives of organic arseno compounds, i, 447.
preparation of arsenious oxides and arseno compounds of the aromatic series, i, 448.
- Marian, J.,** behaviour of oxygenated yeast to β -hydroxybutyric acid, i, 105.
assimilation of glycerol by oxygenated yeast, i, 105.
- Marie, C.,** and **G. Lejeune,** influence of colloids on the cathodic over-voltage of hydrogen and metals, ii, 115.
electrolytic reduction of pyridine; preparation of piperidine, i, 577.
- Marie, S. U.** See **J. T. Raleigh.**
- Mark, H.,** application of Röntgen crystal analysis to questions of structure of organic compounds, i, 1.
crystal structure of some simple inorganic substances (condensed gases, sulphates, etc.), ii, 1130.

- Mark, H.**, and **S. Tolsdorf**, refractive power of atoms for X-rays, ii, 933.
- Mark, H.** See also **J. R. Katz**.
- Mark, J. van der.** See **D. Gouldsmit**.
- Mark, R. E.**, biological oxygen transport by sulphhydryl groups, i, 332.
- Marker, R. E.**, and **N. E. Gordon**, effect of hydrogen-ion concentration on compound formation and adsorption of dyes by mordants, ii, 31.
- Markert, L.** See **K. Freudenberg**.
- Markl, R.** See **R. Kremann**.
- Markley, K. S.**, and **R. M. Hann**, Gunning-Arnold and Winkler boric acid modifications of the Kjeldahl method for the determination of nitrogen, ii, 824.
- Markov, V.** See **G. Povarnin**.
- Markowitz, J.** See **F. N. Allan**.
- Marks, E.** See **R. W. Seuffert**.
- Markwood, L. N.**, alkaloids and oil of larkspur seed (*Delphinium consolida*), i, 762.
- Marmasse, P.** See **P. Lebeau**.
- Marqueyrol, M.** [with **L. Chenel**, **Friederich, D.**, **Florentin, Koehler**, and **P. Loriette**], determination of nitrogen [in explosives], ii, 599.
- Marqueyrol, M.**, and **H. Muraour**, reactions of diphenylamine; preparation of diphenylbenzidine; action of acids on diphenylnitrosoamine in aqueous-alcoholic solution, i, 387.
- Marquina, M.** See **E. Moles**.
- Marquis, (Mlle.) M.**, **P. Urbain**, and **G. Urbain**, treatment of malacan; separation of cerium [hafnium] from zirconium, ii, 699.
- Marsh, J. K.**, emission band spectra of aromatic compounds. I. Their connexion with infra-red absorption bands and a classification, ii, 470.
- emission band spectra of aromatic compounds. II. Their origin, ii, 625.
- Marsh, J. K.** See also **W. H. McVicker**, and **T. H. Nunan**.
- Marsh, J. T.**, and **H. Stephen**, hydroxybenzils, i, 1158.
- Marshall, A. L.**, electrodeposition of zinc from sulphate solutions, ii, 808.
- mechanism of the photochemical reaction between hydrogen and chlorine, ii, 883.
- Marshall, A. L.**, and **B. Bruza**, heat of formation of lead carbonate, ii, 1040.
- Marshall, A. L.** See also **H. S. Taylor**.
- Marshall, J.**, action of aldehydes on Grignard's reagent. III., i, 1428.
- Marshall, M.**, metastable states in low-voltage mercury arcs, ii, 339.
- Marston, H. R.**, colorimetric method for determination of guanidine and methylguanidine, i, 97.
- sterol of *Boletus granulatus*, i, 346.
- colorimetric method for the determination of guanidine and methylguanidine. II. Distinction between guanidine and its methyl derivatives, i, 1047.
- Martin, C. J.** See **E. H. Lepper**.
- Martin, E.** See **W. Herz**.
- Martin, E. J.** See **R. A. Sawyer**.
- Martin, F.**, measurements of viscosity by the Ostwald viscosimeter, ii, 499.
- Martin, F. J.** See **A. F. Joseph**.
- Martin, J. C.**, and **J. S. Burd**, composition of the soil solution as indicated by the displacement method, i, 1526.
- concentration of phosphate in the soil solution according to the displacement method, i, 1527.
- Martin, J. H.** See **G. D. Buckner**.
- Martin, L. H.** See **E. C. Stoner**.
- Martin, R. E.**, effect of light on the thermal conductivity of selenium, ii, 1117.
- Martin, T. L.**, effect of straw on accumulation of nitrates [in soil] and crop growth, i, 1372.
- Martin, W. H.**, relation between the depolarisation of the scattered light and the Kerr effect in liquids, ii, 90.
- Martin, W. S.** See **E. M. Crowther**.
- Martini, A.** See **J. Holluta**.
- Martini, M.**, and **A. Nourisson**, determination of alcohol, ii, 719.
- Martland, M.**, phosphoric esterase of blood at various hydrogen-ion concentrations, i, 454.
- Martland, M.**, and **R. Robison**, possible significance of the hexosephosphoric esters in ossification. V. The enzyme in the early stages at bone development, i, 201.
- Marton, L.**, infra-red absorption spectra, ii, 1025.
- Martz, E.** See **H. Wieland**.
- Marvel, C. S.**, **F. L. Kingsbury**, and **F. E. Smith**, identification of amines. II. m-Nitrobenzenesulphonamides, i, 244.
- Marvel, C. S.**, **D. W. MacCorquodale**, **F. E. Kendall**, and **W. A. Lazier**, synthesis of some possible precursors of lysine, i, 234.
- Marvel, C. S.**, and **V. du Vigneaud**, detection of nitrates and perchlorates, ii, 240.
- Marvel, C. S.** See also **D. A. McGinty**.
- Marza, V.** See **C. J. Parhon**.

- Maschmann, E.**, bismuth compounds, i, 527.
- Masing, G.**, cause of inverse segregation [in alloys], ii, 1146.
- Masing, G.**, and **L. Koch**, constitution of aluminium-copper alloys, ii, 787.
- Masing, G.**, and **M. Póányi**, tensile strength of zinc and cold working, ii, 370.
- Mason, C. W.**, temper colours, ii, 108.
- Mason, F. A.**, derivatives of 1:8-naphthalic acid. II. Preparation and properties of 8-benzoyl- α -naphthoic acid and its derivatives, i, 33.
derivatives of 1:8-naphthalic acid. I. Preparation and properties of 1:8-naphthalyl chloride, i, 34.
synthesis of 1:2-dihydroquinidine, i, 834.
- Mason, F. A.** [with **H. Jenkinson**], nitration of the carbonate and ethyl carbonate of *m*-hydroxybenzaldehyde, i, 931.
- Mason, R. B.**, and **J. H. Mathews**, equilibrium in the systems, zinc chloride-pyridine and cadmium chloride-pyridine, ii, 1063.
- Massa, G.** See **G. Cusmano**.
- Masson, I.** See **G. A. Elliott**.
- Mastin, H.** See **F. Fairbrother**.
- Masuda, S.**, oxygen-combining capacity of haemoglobin determined by the ferricyanide method, i, 604.
- Masumizu, Y.**, cetacea. XVIII. Sugar content of the blood, i, 1349.
- Masumoto, B.** See **S. Komatsu**.
- Masumoto, H.**, thermal and electric conductivities of some aluminium alloys, ii, 503.
- Matheson, G. L.** See **G. S. Whitby**.
- Mathews, J. H.** See **B. H. Carroll**, **R. B. Mason**, and **R. V. Williamson**.
- Matievic, A.** See **A. Skrabal**.
- Matignon, C.**, law of volatility, ii, 670.
physico-chemical study of some organic syntheses, ii, 1068.
- Matignon, C.**, and (*Mlle.*) **G. Marchal**, measurements of radioactivity, ii, 1110.
- Matignon, C.** See also **H. Copaux**.
- Matlin, D.** See **L. S. Weatherby**.
- Matscher, J.** See **A. Zinke**.
- Matsumiya, K.**, organic compounds of arsenic. III. Reaction between arsenic trichloride and α -naphthyl compounds of mercury, i, 1339.
organic compounds of antimony. I. Reaction between magnesium- α -naphthyl bromide and inorganic antimony compounds; tri- α -naphthylstibine and some of its derivatives, i, 1472.
- Matsumiya, K.**, and **M. Naka**, organic compounds of arsenic. II. Reaction between the Grignard reagent and arsenic trioxide, i, 1339.
- Matsunami, N.** See **S. Komatsu**.
- Matsuoka, Z.**, **S. Takemura**, and **N. Yoshimatsu**, kynurenic acid formation in the animal body, i, 731.
- Matsuoka, Z.**, and **N. Yoshimatsu**, new substance formed from tryptophan in the animal body, i, 731.
- Matthäus, K.**, relationship between Ostwald's viscosity equation and Poiseuille's law, ii, 663.
- Matthew, C. W.** See **E. D. Plass**.
- Matthews, M. A.** See **E. de B. Barnett**.
- Matthias, E.**, **C. A. Crommelin**, **H. K. Onnes**, and **J. C. Swallow**, rectilinear diameter of helium, ii, 468.
- Matula, V.** See **J. Sterba-Boehm**.
- Matveev, W.** See **W. Rodionov**.
- Matz, P. P.**, calcium content of blood of normal and tuberculous subjects, i, 1492.
- Mau, C.** See **W. Biltz**.
- Maubert, A.**, **L. Jaloustre**, and **P. Lemay**, influence of radium on the catalase of the liver, i, 737.
- Maubert, A.**, **L. Jaloustre**, **P. Lemay**, and **G. Andreoli**, catalytic properties of bismuthoxyl, i, 614.
- Maume, L.** See **H. Lagatu**.
- Maurer, H.** See **W. Küster**.
- Maurer, K.** See **H. H. Schlubach**.
- Mauss, H.** See **K. von Auwers**.
- Mauthner, F.**, synthesis of divarinol, i, 25.
synthesis of 3:5-dihydroxycinnamic acid, i, 926.
synthesis of androsin, i, 950.
- Mautner, P.** See **F. Straus**.
- Maverick, G.** See **T. Batuecas**.
- Maw, W.** See **C. F. Allpress**.
- Maxted, E. B.**, absorption of catalytically poisonous metals by platinum. I. Absorption of lead and mercury, ii, 384.
- Maxymowicz, W.** See **L. Moser**.
- May, O. E.** See **J. F. T. Berliner**.
- May, R.** See **G. D. Bengough**.
- May, R. M.** See **R. F. Le Guyon**.
- Mayer, A.**, and **L. Plantefol**, equilibrium of cell constituents and mode of oxidation in the cell; imbibition and respiratory types in reviviscent plants, i, 1120.
- Mayer, F.**, and **W. Fischbach**, anthrone series, i, 1076.
- Mayer, F.**, and **R. Schulze**, 4- and 6-methylisatin, i, 1315.
- Mayer, H.**, absorption spectrum and specific heat of chlorine dioxide, ii, 12.

- Mayer, M. E.** See *H. Lange*.
Mayer, N. See *G. Weissenberger*.
Mayer, P., behaviour of oxalacetic acid to animal organs, i, 736.
Mayer-Bugström, C. See *A. Schaar-schmidt*.
Mayneord, W. V. See *F. L. Hopwood*.
Mazé, P., plurality of the products of photosynthesis deduced from a study of the gaseous exchanges between the atmosphere and the whole plant, i, 485.
 influence of fluorine and iodine on reproductive power of rats and on the growth of the young, i, 870.
Maze-Sencier, J. See *P. Jolibois*.
Mazourevitch, H., action of aromatic amines on thiosemicarbazide, i, 984.
 hydrogenation of cyclic and acyclic aldehydes and ketones by aluminium amalgam, i, 1240.
 preparation of alicyclic primary amines by reduction of oximes with active aluminium, i, 1247.
Mazzetti, C., cobalt chloride solutions. I, ii, 209.
 cobalt chloride solutions. II. Solutions of barium chloride and of barium and cobalt chlorides, ii, 210.
Mazzocco, P., and *V. Morera*, effect of insulin on the composition of the blood, i, 482.
Mazzucchelli, A., perchlorate ion as catalyst in the electrolytic preparation of persulphuric acid, ii, 214.
Mazzucchelli, A., and *A. Vercillo*, preparation of intermetallic compounds by the wet method, ii, 582.
 refractive indices of perchlorates in aqueous solution, ii, 963.
Mecke, R., theory of band spectra, ii, 259.
 structure of a class of band spectra, ii, 351.
 anomalies of intensity in band spectra, ii, 626.
 formation of band spectra, ii, 736.
Mecklenburg, M. See *L. Dünner*.
Mecklenburg, W., methylene-blue test; evaluation of active charcoals, ii, 530.
Medici, M. See *U. Sborgi*.
Meeker, D. O. See *R. S. Hubbard*.
Meerwein, H., and *Rudolf Schmidt*, reduction of aldehydes and ketones, i, 1239.
Meerwein, H., and *J. Weber*, transformation of maleic esters into fumaric esters, i, 1038.
Meester, W. A. T. de. See *E. Cohen*.
Meggers, W. F., spectrum regularities for scandium and yttrium, ii, 77.
 regularities in the arc spectrum of niobium, ii, 167.
Meggers, W. F., periodic structural regularities in spectra as related to the periodic law of the chemical elements, ii, 258.
 platinum metals. VII. Arc spectra of the platinum metals (4500—9000 Å.), ii, 454.
 multiplets in the spectrum of ionised vanadium, ii, 913.
Meggers, W. F., C. C. Kiess, and F. M. Walters, jun., the displacement law of arc and spark spectra, ii, 77.
Meggers, W. F., and *O. Laporte*, arc spectrum regularities for ruthenium, ii, 1101.
Meggers, W. F., and *B. E. Moore*, quartet-system multiplets in the arc spectrum of yttrium, ii, 612.
Meggers, W. F. See also *P. D. Foote*.
Mehl, R. F., and *D. P. Smith*, vacuum door, ii, 707.
Mehrer, M. See *S. Fränkel*.
Mehrotra, M. R. See *K. C. Sen*.
Mehta, R. P. See *O. L. Brady*.
Meldinger, W., photographic blackening curve, ii, 143.
Meier, R., formation of methæmoglobin. VI. Ferricyanide and *p*-benzoquinone, i, 1476.
Meier, R., and *O. Meyerhof*, heat of combustion of glycogen, ii, 92.
Meier, R. See also *O. Meyerhof*.
Meier, W. See *Walter König*.
Meijer, G., system, copper nitrate-ammonium nitrate-water, ii, 123.
Meininger, H. See *F. Hein*.
Meisenburg, K. See *L. Taub*.
Meisenheimer, J., constitution of Grignard's magnesium compounds. II, i, 527.
 fission of ring systems, i, 1335.
Meisenheimer, J., Hans Lange, and W. Lamparter, Beckmann transformation. V. Oximes of *p*-methoxybenzil, i, 1073.
Meisenheimer, J., E. Piper, and H. Lange, etherates of the magnesium halides, i, 1252.
Meissner, K. W., absorption in excited neon, ii, 337.
 absorption in excited gases, ii, 1099.
 plant for liquefaction of helium; some measurements made with the aid of liquid helium, ii, 1135.
Meissner, O. See *D. Vorländer*.
Meitner, L., γ -rays and atomic disintegration, ii, 10.
Meitner, L. See also *O. Hahn*.
Meldrum, A. N., and *R. L. Alimchandani*, reduction of the group $-\text{CH}(\text{OH})\cdot\text{CCl}_3$. I, i, 1272.

- Melin, E.**, and **K. Helleberg**, activity of the proteolytic and related enzymes of certain *Hymenomycetæ* known as *Mycorrhiza*, i, 745.
- Mellon, M. G.**, and **V. M. Morris**, borax as a standardising agent for acids and bases, ii, 325.
- Mellor, J. W.**, and **A. Scott**, action of heat on kaolinite and other clays. I., ii, 698.
- Melly, J.**, and **A. von R  th**, animal calorimetry. IV. Specific dynamic action of completely hydrolysed protein, with a note on method of evaluation, i, 193.
animal calorimetry. V. Specific dynamic action of fat, i, 332.
- M  lon, L.**, effect of amino-acids on the metabolism of isolated organs of dogs, i, 190.
- Memmen, F.** See **R. Willst  tter**.
- M  nager, Y.** See **J. Leli  vre**.
- Menchikovski, F.**, composition of Palestine olives and their oil, i, 1521.
- Mendel  ev, P.**, and **A. Slosse**, r  le of calcium and potassium ions in the development of embryos, i, 456.
- Menke, J. B.**, nitration with nitrates. I. and II., i, 386, 655.
- Menner, E.** See **R. Schwarz**.
- Menschikov, G.** See **O. I. Magidson**, and **A. E. Tschitschibabin**.
- Menzies, A. C.**, optical separations and atomic numbers, ii, 2.
optical screening-constant regularities, ii, 831.
- Menzies, A. W. C.**, isotopic composition and atomic weight of chlorine in meteorites, ii, 1109.
- Menzies, A. W. C.**, **E. M. Collins**, and **P. L. Tyson**, simple circulation pump for gases, ii, 818.
- Mercier, P.** See **C. E. Guye**.
- Merck & Co.**, quinine compounds [quinine salicylosalicylate], i, 1448.
- Merck, E.**, **Chemische Fabrik**, preparation of oxycodeinones, i, 1315.
acetopyrocatechol dibenzyl ether, i, 1431.
- Merck, E.**, **O. Wolfes**, and **A. D  tzmann**, preparation of polyalkylhydroxyarylamino propanes or their *N*-monoalkyl derivatives, i, 393.
- Merejkovski, B. K.**, partial dehalogenation of polyhalogen derivatives, i, 878.
action of bromine on hydrocarbons; bromination of β -methylbutane, i, 1033.
relations between organic ring systems and unsaturation properties. II., i, 1291.
- Merkenschlager, F.** See **F. Boas**.
- Merrill, A. T.** See **W. M. Clark**, and **H. C. Sherman**.
- Merrill, H. B.**, hydrolysis of skin and hair, i, 92.
- Merton, T. R.**, ultra-violet spectrophotometry, ii, 78.
- Merton, T. R.**, and **J. E. G. Pilley**, spectrum of nitrogen, ii, 333.
extension of the negative band spectrum of nitrogen, ii, 737.
excitation of the band spectrum of helium, ii, 1024.
- Merwin, H. E.** See **R. E. Gibson**, and **R. W. G. Wyckoff**.
- Messenger, W. G.** See **E. Vanstone**.
- Messerknecht, C.**, and **W. Biltz**, density of beryllium halides, ii, 1141.
- Messerknecht, C.** See also **W. Biltz**.
- Messmer, E.** See **K. Hess**.
- Mestrezat, W.**, and (*Mlle.*) **Y. Garreau**, transport of electrolytes; mobilisation of ions by intermolecular exchanges, ii, 543.
transport of electrolytes; velocity of diffusion through a membrane and ionic selection, ii, 543.
- Mestrezat, W.**, and (*Mlle.*) **M. Janet**, dispersion of colloidal electrolytes in relation to mineral exchanges in cells, i, 198.
- Metcalfe, E. P.**, and **B. Venkatesachar**, origin of the satellites of mercury lines, ii, 82.
- M  tin, M.** See **A. Goris**.
- Metz, L.** See **L. W  hler**.
- Meulen, H. ter**, determination of nitrogen in organic compounds by catalytic hydrogenation, ii, 66.
determination of oxygen in organic compounds. II., ii, 156.
colorimetric determination of molybdenum, ii, 330.
dithiomolybdates, ii, 584.
determination of nitrogen in oil, coke, and proteins, ii, 599.
- Meulen, P. A. van der**. See **W. Rieman**.
- Meulenhoff, J.**, complex compounds of boric acid. I. Dipyrocathecholboric acid, some salts and derivatives. II. Salts of borosalicylic acid, i, 541.
optically active boron, i, 920.
- Meunier, L.**, and **A. Bonnet**, fluorescence of vegetable colouring matters, i, 1439.
fluorescence of fisetin in the ultra-violet light of the wood lamp, ii, 738.
- Meunier, L.**, and **A. Breguet**, relations between age of cellulose and the properties of nitrocellulose prepared from it, i, 119.

- Meunier, L.**, and **M. Queroix**, reactions in solutions of quinone, i, 412.
- Meurice, R.**, determination of potassium, ii, 825.
- Meuwissen, J. C.** See **W. P. Jorissen**.
- Meyer, A.** See **W. Autenrieth**.
- Meyer, E.** See **R. Wintgen**.
- Meyer, F.**, apparatus for ferrons oxide determinations, ii, 898.
- Meyer, G. M.** See **P. A. Levene**.
- Meyer, H.**, new derivatives of the pyridinecarboxylic acids, i, 836.
- Meyer, H. O.** See **A. Gutbier**.
- Meyer, J.**, reaction between diazodeoxybenzoin and carbon disulphide, i, 424.
substitute for cobalt glass, ii, 601.
- Meyer, J., G. Dirska**, and **F. Clemens**, complex cobaltic selenates, ii, 422.
- Meyer, J.** See also **F. Fichter**, and **L. Ruzicka**.
- Meyer, K. F.** See **E. Wagner**.
- Meyer, P.** See **H. Staudinger**.
- Meyer, Paul.** See **W. Lipschitz**.
- Meyer, M.**, laboratory preparation of zinc diethyl and lead tetraethyl, i, 893.
- Meyer, R. J.**, and **H. Nachod**, sulphates of quadrivalent uranium, ii, 230.
- Meyer, R. J.**, and **W. Schulz**, detection and determination of small quantities of fluorine, ii, 598.
- Meyer, S.**, magnetisation numbers of the rare earths, ii, 173, 944.
- Meyer, W.** See **W. Autenrieth**, and **A. Sonn**.
- Meyer-Bisch, R.**, and **F. Günther**, mineral metabolism in diabetics. II. Disturbances in intermediate calcium and chloride metabolism, i, 328.
- Meyerfeld, J.**, ammonium oxalate as a reagent for distinguishing sodium from potassium salts, ii, 1202.
- Meyerhof, O.**, determination of lactic acid in animal organs, i, 719.
relation between processes of fission and respiration in the cell, i, 993.
methylglyoxalase, i, 1507.
- Meyerhof, O., K. Lohmann**, and **R. Meier**, synthesis of carbohydrate in muscle, i, 727.
- Meyerhof, O.**, and **R. Meier**, lactic acid metabolism in the living animal, i, 612.
- Meyerhof, O.** See also **R. Meier**.
- Michaelis, L.**, theory of permeability of membranes for electrolytes, ii, 1150.
general principles of ion effects on colloids, ii, 1154.
- Michaelis, L.**, and **S. Dokan**, electric charge on sparingly soluble substances, ii, 963.
- Michaelis, L.**, and **A. Fujita**, phase boundary potentials, ii, 131.
- Michaelis, L.**, and **M. Mizutani**, influence of neutral salts on the potential of the hydrogen electrode in contact with a hydrochloric acid solution, ii, 130.
dissociation of weak electrolytes in water-alcohol solutions, ii, 793.
- Michailov, A. K.** See **W. S. Sadikov**.
- Michalek, J. C.** See **W. H. Rodebush**.
- Michaud, F.**, general character and electrical properties of gels, ii, 292.
- Michaux, A.** See **L. Randoin**.
- Michel, P.** See **G. Mourignand**.
- Michetti, A.** See **L. Vecchiotti**.
- Michlin, D.** See **B. Sbarsky**.
- Mickwitz, A.**, phosphors of boric acid, ii, 476.
- Mie, G.**, impulse radiation and Compton's scattered radiation, ii, 844, 1128.
- Miekeley, A.** See **M. Bergmann**.
- Mijs, J. A.** See **J. Böeseken**.
- Mikeska, L. A.** See **P. A. Levene**.
- Milan, E. F.** See **W. A. Patrick**.
- Milas, N. A.**, and **E. M. Terry**, oxidation of fumaric acid and maleic acid to tartaric acid, i, 780.
- Miller, A. L.** See **C. H. Viol**.
- Miller, A. W.** See **F. B. Dains**.
- Miller, (Miss) C. C.**, Stokes-Einstein law for diffusion in solution, ii, 28.
- Miller, C. J.**, and **S. Smiles**, constitution of disulphoxides. II., i, 391.
- Miller, C. J.** See also **D. T. Gibson**.
- Miller, E. J.**, adsorption by activated sugar charcoal. II. Adsorbability of hydrogen and hydroxyl ions, ii, 656.
- Miller, H.** See **G. Piness**.
- Miller, H. G.**, and **W. W. Yates**, relation of treatment of natural food-stuffs to their effect on growth and reproduction, i, 108.
- Miller, H. G., W. W. Yates, R. C. Jones**, and **P. M. Brandt**, mineral metabolism with dairy cattle; mineral equilibrium after prolonged lactation, i, 1498.
- Miller, H. R.**, use of acetylene for the determination of hæmoglobin, i, 1112.
- Miller, L. B.**, adsorption by aluminium hydroxide considered as a solid solution phenomenon, ii, 192.
- Miller, M.** See **E. Wedekind**.
- Miller, R. C.** See **W. D. Ramage**.
- Miller, R. F.**, optical constants of crystals of selenium and tellurium between 3000 and 5000 Å., ii, 751.

- Miller, W. L.**, the method of Willard Gibbs in chemical thermodynamics, ii, 399.
concentration and polarisation at the cathode during electrolysis of solutions of copper salts, ii, 798.
- Milliau, E.**, action of gelatin on electrolytic cadmium, ii, 680.
- Milligan, A. G.**, trustworthy shaking machine, ii, 150.
- Milligan, C. H.** See *A. S. Richardson*.
- Millikan, R. A.**, electron and light-quantum from the experimental point of view, ii, 624.
evidence for the divisibility of the electron, ii, 832.
- Millikan, R. A.**, and *I. S. Bowen*, possible reconciliation of Bohr's interpenetration ideas with Sommerfeld's relativistic treatment of electron orbits, ii, 467.
series spectra of three-valency-electron atoms of phosphorus (P III), sulphur (S IV), and chlorine (Cl V), ii, 610.
new light on two-electron jumps, ii, 733.
- Millikan, R. A.** See also *I. S. Bowen*.
- Mills, W. H.**, *W. H. Palmer*, and (*Miss*) *M. G. Tomkinson*, pyridofluorene and some of its derivatives, i, 68.
- Milne, E. A.**, equilibrium of the calcium chromosphere, ii, 628.
Saha's ionisation formula, and the theoretical value of the photo-electric absorption coefficient, ii, 920.
- Milobedzki, T.**, tautomerism of dialkyl phosphites. III, i, 1051.
- Milroy, J. A.**, determination of glucose in blood, i, 1486.
- Minakami, R.**, ionic antagonism, ii, 860.
- Mingoia, Q.** See *B. Oddo*.
- Mingozzi, A.** See *G. Rastelli*.
- Minovici, S.**, and (*Miss*) *M. Iliesco*, determination of lipoids in the blood-serum of nervous cases, i, 452.
- Minunni, G.** [with *G. Lazzarini*, and *S. D'Urso*], syntheses of heterocyclic nitrogen nuclei. I. Pyrazolecarboxylic acids by condensation of aldehyde-phenylhydrazones with ethyl acetate, i, 1175.
- Mirande, M.**, optical properties of sterol plastids and of phytosterol from bulbs of *Lilium candidum*, i, 618.
phytosterol from bulb scales of the genus *Lilium*, i, 872.
- Mircescu, J.** See *E. Angelescu*.
- Mirsky, A. B.** See *M. L. Anson*.
- Mislowitzer, E.**, measurement of hydrogen-ion concentration by means of quinhidrone; a new double electrode in beaker form, i, 1483.
measurement of hydrogen-ion concentration of blood; the syringe as electrode, i, 1483.
new potentiometer, i, 1485.
- Mislowitzer, E.**, and *M. Vogt*, electro- titration in physiological liquids. I. Determination of chlorides in blood and serum, i, 1485.
- Mislowitzer, E.** See also *P. Rona*.
- Mita, J.**, pharmacology of the oxidation products of ether, i, 195.
- Mitchell, A. C. G.**, activation of hydrogen by excited mercury atoms, ii, 1077.
- Mitchell, A. D.**, hydrolytic decomposition of phosphorus trichloride, ii, 316.
- Mitchell, T. C.** See *R. M. Caven*.
- Mitra, N. G.** See *S. S. Bhatnagar*.
- Mitsukuri, S.**, *T. Rokkaku*, and *T. Watase*, vapour pressures of hydrogen chloride above aqueous solutions. I., ii, 1050.
- Mitter, P. C.**, and *N. Palit*, condensations of amidines with ethoxymethylene derivatives of β -ketonic esters, β -diketones, and cyanoacetic ester. II., i, 1319.
- Mittra, N. M.**, and *N. R. Dhar*, induced reactions and diabetes from the point of view of induced oxidation, ii, 576.
- Miura, H.** See *R. Hara*.
- Miyake, M.** See *G. A. Roush*.
- Miyake, S.**, complex salts of antimony trichloride, ii, 815.
- Miyamichi, E.** See *P. Karrer*.
- Miyazaki, K.**, and *J. Abelin*, specific dynamic action of foodstuffs. III. Relation between accessory food factors and specific dynamic action of flesh, i, 332.
- Mizutani, M.**, ionisation of weak electrolytes in water-alcohol solutions. II. Relations between chemical constitution and alcohol sensitivity of acids and bases, ii, 867.
- Mizutani, M.** See also *L. Michaelis*.
- Mockeridge, (Miss) F. A.**, formation of plant growth-promoting substances by micro-organisms, i, 106.
- Modern, F.**, and *W. Panli*, electrolyte-free, water-soluble proteins. IV. Acid-protein compounds. I., ii, 518.
- Möller, K.** See *K. von Auwers*.
- Moeller, O.** See *D. B. Jones*.
- Möllering, H.** See *Erich Müller*.
- Moesveld, A. L. T.** See *E. Cohen*.

- Mohler, F. L.**, critical potentials associated with excitation of alkali spark spectra, ii, 615.
soft X-ray levels and the Bohr scheme of atomic structure, ii, 1113.
- Mohler, F. L.** See also **P. D. Foote**.
- Mohr, J. M.**, pole-effect of barium and neodymium rays in the visible region of the spectrum, ii, 612.
- Moir, J.**, colour and chemical constitution. XIX. Organic fluorescence, ii, 261.
colour and molecular geometry. III. Graphical presentation of the theory, ii, 634.
colour and molecular geometry. IV. Explanation of the colours of cyanine dyes, ii, 1121.
- Moir, J.**, and **J. S. Jamieson**, electrolytic determination of moderate amounts of arsenic, ii, 1094.
- Moir, J.**, and **J. Lewis**, acocantherine. II., i, 833.
- Mokragatz, M.** See **G. Bertrand**.
- Mokruschin, S. G.**, adsorption of acids by filter-paper, ii, 957.
- Mokrzycki, G.** See **T. Peczalski**.
- Moldenhauer, W.**, synthesis of ammonia at high pressures. II., ii, 215.
- Molengraaff, G. A.**, and **A. L. Hall**, alkali granite and nepheline syenites, canadite, and foyaitite, in the Vredefort mountainland, South Africa, ii, 64.
- Moles, E.**, fundamental atomic weights, ii, 346, 1021.
- Moles, E.**, and **M. Crespi**, kinetics of the thermal decomposition of the permanganates, ii, 877.
- Moles, E.**, and **M. Marquina**, solubility of mercury halides in mixtures of glycerol and water, ii, 283.
- Molinari, V.**, separation of *o*- from *p*-nitrotoluene and *o*- from *p*-nitrochlorobenzene by rectification in a vacuum, i, 380.
- Moll, W. J. H.**, and **H. C. Burger**, vacuum thermo-element, ii, 613.
- Molliard, M.**, effect of the mineral composition of the culture medium on the structure of *Aspergillus niger*, i, 480.
effect of the nature of sugar on the formation of organic acids by *Aspergillus niger* in unbalanced media, i, 480.
- Molodiy, T.**, and **F. Pavlov**, determination of surface tension from photographic records of the formation of drops, ii, 1142.
- Moltini, C. B. von.** See **F. Klimone**.
- Moltschanova, O. P.** See **B. A. Lavrov**.
- Monath, E.** See **M. Giua**.
- Monceaux, R.** See **C. Richtet, jun.**
- Mondain-Monval, P.**, salt solutions, ii, 654.
solubility of sucrose, ii, 769.
- Mong, H. yu.** See **A. Rosenheim**.
- Monroe, C. F.**, and **A. E. Perkins**, mineral metabolism of dairy cows as affected by distilled water and previous feeding, i, 1498.
- Monroe, C. F.** See also **A. E. Perkins**.
- Montagne, (Mlle.) M.** See **E. E. Blaise**.
- Montgomery, E. G.**, determination of cyanates in blood, i, 455.
- Moog, L.** See **B. Helferich**.
- Mook, H. W.** See **H. J. Backer**.
- Moor, F.** See **H. Freundlich**.
- Moor, W. O.**, urochromogen, i, 328.
urochromogen and urochrome; the new form of urea, i, 460.
new oxalate from human urine, i, 1490.
- Moore, B. E.** See **W. F. Meggers**.
- Moore, C. J.**, liquid hydrogen sulphide as a source of laboratory supply of the gas, ii, 1195.
- Moore, C. W.** See **E. F. Armstrong**.
- Moore, F. H.** See **H. H. Hodgson**.
- Moorhouse, V. H. K.** See **A. T. Cameron**.
- Moose, J. E.**, and **S. W. Parr**, re-determination of the heats of oxidation of certain metals, ii, 208.
- Moquet, L.** See **H. Bierry**.
- Morani, V.**, presence of Δ^1 -menthen-3-one in the essential oil of Sicilian *Mentha pulegium*, i, 146.
essential oil of *Ptychotis verticillata*, Duby, i, 146.
- Moraško, V.**, protein coagulation in drops. VII. Study of the precipitin reaction by means of the drop method, i, 1487.
- Morávek, V.**, preparation of colloidal silver by reduction with chloroform, ii, 775.
- Morávek, V.** See also **H. Lundegårdh**.
- Morel, G.** See **R. Delaby**.
- Morera, V.** See **P. Mazzocco**.
- Morey, G. W.**, and **N. L. Bowen**, binary system, sodium metasilicate-silica, ii, 121.
ternary system, sodium metasilicate-calcium metasilicate-silica, ii, 1161.
- Morey, G. W.** See also **R. W. G. Wyckoff**.
- Morgan, G. T.**, and **A. R. Bowen**, higher fatty acids; eicosaic and stearic acids, i, 114.
- Morgan, G. T.**, **S. R. Carter**, and **A. E. Duck**, $\gamma\gamma$ -diethylpentane (tetraethylmethane), i, 877.

- Morgan, G. T., S. R. Carter, and W. F. Harrison**, residual affinity and co-ordination. XXIV. Heats of chelation of dithiolated metallic halides, ii, 1042.
- Morgan, G. T., and E. A. Cooper** [with *A. W. Burt*], bactericidal action of quinones and allied compounds, i, 207.
- Morgan, G. T., E. A. Cooper, and F. J. Corby**, bactericidal action of tellurium- β -diketones, i, 206.
- Morgan, G. T., and G. R. Davies**, antimonial analogues of the cacodyl series, i, 1395.
- Morgan, G. T., and H. D. K. Drew**, interactions of tellurium tetrachloride and acetic anhydride, i, 530.
aromatic derivatives of germanium, i, 1197.
- Morgan, G. T., H. D. K. Drew, and C. R. Porter**, Claisen condensation, i, 363.
- Morgan, G. T., and W. J. Hickinbottom**, nitration of stereoisomeric aromatic diamines, i, 156.
- Morgan, G. T., and E. Holmes**, higher methyl ketones, i, 514.
rambutan tallow as source of *n*-eicosoic acid, i, 777.
- Morgan, G. T., and W. H. Porritt**, arylselenoglycollic acids, i, 1196.
- Morgan, G. T., and A. D. Sheasby**, acenaphthene series. II. 1-Amino-acenaphthene, i, 1144.
- Morgan, G. T., and D. G. Skinner**, stereoisomeric azo dyes, i, 1191.
- Morgan, G. T., and J. D. M. Smith**, residual affinity and co-ordination. XXV. A quadridentate group contributing four associating units to metallic complexes, i, 1457.
the co-ordination theory in its application to the study of mordant dyes, ii, 841.
- Morgan, G. T., and H. M. Stanley**, acenaphthene series. I. 2-Aminoacenaphthene, i, 133.
- Morgan, G. T., and C. J. A. Taylor**, cyclotelluropentanediones containing aliphatic and aromatic substituents, i, 634.
- Morgan, G. T., and V. E. Yarsley**, residual affinity and co-ordination. XXIII. Interactions of trimethylstibine and platinum and palladium chlorides, i, 378.
- Morgan, J. D.**, thermal theory of gas ignition by electric sparks, ii, 553.
- Morgan, J. W.** See *W. D. Harkins*.
- Morgan, S. O.** See *H. H. Lowry*.
- Morgan, W. O. P.** See *C. D. Murray*.
- Morgen, A., C. Windheuser, and E. Ohlmer**, replacement of protein by urea in rations for milch animals, i, 217.
- Morgulis, S., and O. Barkus**, glycolysis *in vitro*, i, 1344.
- Mori, S.**, parasymphathetic stimulants in vitamin extracts, i, 1021.
- Mori, T.** See *U. Suzuki*.
- Moriarty, M. E.** See *G. N. Hoeffel*.
- Morimura, S.**, cetacea. XII. Physicochemical properties of the urine of the porqual, i, 1348.
- Morison, C. G. T.**, effect of light on settling of suspensions, ii, 774.
- Morison, C. G. T.** See also *G. R. Clarke*.
- Moritz, A. R.**, effect of ultra-violet irradiation on calcium of the blood-serum, i, 995.
- Morosov, N. I.**, influence of excess of reagents on the formation of dispersoid solutions of mercuric sulphide, ii, 197.
- Moroz, A.** See *L. Marchlewski*.
- Morris, J. L., and E. E. Ecker**, destruction of uric acid by bacteria and moulds, i, 478.
- Morris, J. L.** See also *E. E. Ecker*.
- Morris, V. A.** See *D. C. Henry*.
- Morris, V. N.** See *M. G. Mellon*.
- Morrison, D. M.** See *O. Maass*.
- Morrison, F. R.**, chemical examination of the seeds of the "bunya bunya" (*Araucaria bidwillii*, Hooker). I, i, 619.
- Morrison, F. R.** See also *A. R. Penfold*.
- Morse, C. W.** See *F. H. Rhodes*.
- Morse, M.** See *A. S. Wheeler*.
- Morse, S.** See *H. Fricke*.
- Mortimer, B. R.** See *L. Sattler*.
- Morvillez, F.** See *M. Polonovski*.
- Mosbacher, I.** See *A. E. Hill*.
- Moser, L., and K. Atynski**, preparation of selenides from hydrogen selenide and solutions of metallic salts, ii, 583.
- Moser, L., A. Brukl, and I. Vén**, separation of iron and aluminium from manganese and magnesium and from phosphoric acid by means of sulphosalicylic acid, ii, 329.
- Moser, L., and R. Lessing**, determination and separation of rarer metals from other metals. V. Separation of zirconium and hafnium from titanium, cerium, and thorium, ii, 718.
- Moser, L., and W. Maxymowicz**, determination of nickel as dioxide, ii, 1206.
- Moses, R. L.** See *M. A. Ramirez*.

- Moses, *W.* See *T. Sabalitschka*.
- Mosettig, *E.* See *E. Späth*.
- Mosharrafa, *A. M.*, quantum explanation of the Zeeman effect, ii, 830.
- Moskovits, *N.*, preparation of acetone and alcohol by the fermentation of carbohydrates with *Bacillus macerans*, i, 1511.
- Mosonyi, *J.*, excretion of certain nitrogenous substances in the urine in the course of experimental nephritis, i, 1491.
- Mottram, *E. N.* See *A. Lapworth*.
- Mottram, *J. C.* See *E. C. Dodds*.
- Mott-Smith, *L. M.* See *J. A. Becker*.
- Motzoc, *D.* See *E. Angelescu*.
- Moudgill, *K. L.*, Travancore essential oils. II. Oil from the leaves of *Lantana camara*, i, 565.
- Travancore essential oils. III. Oil from the resin of *Canarium strictum*, Roxb. (black dammar), i, 823.
- Travancore essential oils. V. Essential oil from *Ageratum conyzoides*, Linn. (appa grass), i, 945.
- Travancore essential oils. VI. Oil from *Cymbopogon caesioides*, Stapf. (inchi grass), i, 1293.
- Mountain, *E. D.*, potash-oligoclase from Mt. Erebus, Antarctic, and anorthoclase from Mt. Kenya, East Africa, ii, 819.
- Moureu, *C.*, destruction of Berthelot's calorimetric bomb; its replacement by a new type of bomb, ii, 427.
- Moureu, *C.*, and *C. Dufraisse*, autoxidation and anti-oxygenic action. XIII. Deactivation of acraldehyde by quinol; experiments with light; deactivation brought about by quinol does not explain the anti-oxygenic action, i, 362.
- so-called poisoning of oxidising catalysts, ii, 413.
- Moureu, *C.*, *C. Dufraisse*, and *M. Badoche*, autoxidation and anti-oxygenic action. XII. Active autoxidisable form of acraldehyde, i, 117.
- autoxidation and anti-oxygenic action. XIV. Activation of acraldehyde by light, i, 362.
- autoxidation and anti-oxygenic action. XV. Activation of acraldehyde by oxygen and by light and deactivation by quinol, particularly in connexion with the condensation to disacryl, i, 363.
- Moureu, *C.*, *C. Dufraisse*, and *H. Blatt*, diphenylphenylacetylenylcarbinol [triphenylpropargyl alcohol]; ethers. II., i, 136.
- Moureu, *C.*, *C. Dufraisse*, and *P. Lotte*, autoxidation and anti-oxygenic action. XVI. Location of the catalytic property in the oxidisable part of the molecule of the catalyst, ii, 561.
- Moureu, *C.*, and *P. Landrieu*, calorimetric bomb with platinum lining, ii, 995.
- Moureu, *H.* See *C. Dufraisse*.
- Mourignand, *G.*, *A. Leulier*, and *P. Michel*, fluctuations of the iron in the blood during the course of experimental scurvy, i, 330.
- Moyse, *H. W.* See *H. J. Lucas*.
- Mrozek, *O.* See *O. Mumm*.
- Muchamedoff, *A.* See *B. Sbarsky*.
- Muchin, *G. E.* See *W. F. Timoféev*.
- Mudd, *S.*, electroendosmosis through mammalian serous membranes. I. Hydrogen-ion reversal point with buffers containing multivalent anions, i, 468.
- electroendosmosis through mammalian serous membranes. II. Comparison of the hydrogen-ion reversal points with acetate and with citrate-phosphate buffers, i, 1355.
- Mühl, *W.* See *K. Brand*.
- Muehlberg, *W. F.*, explosion method for peroxide fusions, ii, 899.
- Muehlberger, *C. W.*, and *V. Lenher*, additive products of selenium dioxide with the halogen acids, ii, 890.
- Müller, *Adolf*, absorption of ethylene by ortho-, pyro-, and meta-phosphoric acid, i, 1373.
- Müller, *Alex.*, universal X-ray spectrograph, ii, 895.
- Müller, *Alex.*, and *W. B. Saville*, further X-ray measurements on long-chain compounds (*n*-hydrocarbons), ii, 367.
- Müller, *Alex.* See also *E. von Angerer*.
- Müller, *Alfred*. See *O. Fischer*.
- Müller, *Arno*, formation of coumarins from citric acid and phenols, i, 1442.
- Müller, *Carl*, very thin, transparent metal films, ii, 1039.
- Müller, *Emil*. See also *B. Holmberg*.
- Müller, *Erich*, system, chromium oxide-chromium hydroxide-chromite-sodium hydroxide, ii, 124.
- valency problems, ii, 363.
- course of organic reactions, ii, 414.
- valency in boron compounds, ii, 841.
- simple method for preparing ultra-filters, ii, 1061.
- Müller, *Erich* [with *E. Reissmann*, and *O. Ballin*], system, lead hydroxide-lead oxide-plumbite-sodium hydroxide solution, ii, 125.

- Müller, *Erich*, and *H. Aarflot*, potentiometric determinations with mercurous salts, ii, 65.
- Müller, *Erich*, and *D. Junck*, potentiometric study of the reaction between chlorine water and iodide ion, ii, 584.
- potentiometric study of the reduction of iodate with iodide, ii, 585.
- Müller, *Erich*, and *H. Möllering*, potentiometric investigation of the reduction of permanganate by ferrous ion and iodine ion, ii, 305.
- Müller, *Erich*, and *F. Müller*, catalytic decomposition by formaldehyde. III, ii, 414.
- catalytic decomposition of pyruvic acid, ii, 414.
- Müller, *Erich*, and *A. Schuch*, potentiometric study of the reaction between halogens and the cyanogen ion, ii, 825.
- Müller, *Ernst* (Heidelberg), and *C. Gottfried*, decomposition of ethyl diazoacetate by copper acetylide, i, 893.
- Müller, *Ernst* (Königsberg). See *A. Sonn*.
- Müller, *F.*, potentiometric determination of alkaloids with a hydrogen electrode, ii, 607.
- Müller, *F.* See also *Erich Müller*.
- Müller, *G.* See *B. Neumann*.
- Müller, *H.* See *G. Kornfeld*, and *G. Schroeter*.
- Müller, *Hans*, and *L. Kürthy*, chemistry and physiology of bismuth. II. Tendency of bismuth to form complex salts, ii, 61.
- Müller, *Hans*. See also *L. Kürthy*.
- Müller, *Helmut*, guanidine compounds in the extractives of ox-testicles, i, 854.
- biological relationship of arginine to agmatine, i, 1496.
- galegine, i, 1520.
- Müller, *Helmut*. See also *F. Holtz*.
- Müller, *Herbert*. See *E. Weitz*.
- Mueller, *J. Howard*, tuberculin, i, 616.
- Mueller, *J. Howard*, *M. Wayman*, and *H. Zinsser*, chemical composition of residue antigen, i, 1016.
- Müller, *John H.*, and *H. R. Blank*, allotropy of germanium dioxide, ii, 145.
- Müller, *M.* See *P. Wenger*.
- Müller, *P.* See *F. Fichter*.
- Müller, *Richard*. See *Hans Fischer*.
- Müller, *Robert*, solubility of some inorganic salts in organic solvents, ii, 380.
- Müller, *Robert*, *F. Hölzl*, *W. Knaus*, *F. Planiszig*, and *K. Pretz*, electrochemistry of non-aqueous solutions. IV. Attempts to deposit certain metals of the earths and alkaline-earth from anhydrous pyridine, ii, 133.
- Müller, *Robert*, *R. Hönig*, and *A. Konetschnigg*, electrochemistry of non-aqueous solutions. V. Attempts to deposit certain of the heavy metals from anhydrous pyridine, ii, 134.
- Müller, *Robert*, *E. Pinter*, and *K. Pretz*, electrochemistry of non-aqueous solutions. VI. Electro-deposition of some metals from anhydrous solutions in amyl alcohol, acetonitrile, aniline, and quinoline, ii, 882.
- Müller, *Robert*. See also *R. Kremann*.
- Müller-Bardorff, *K.* See *G. Heller*.
- Mukerji, *B. K.* See *N. R. Dhar*.
- Mukerji, *D. N.* See *S. S. Bhatnagar*.
- Mukerji, *K. B.*, and *N. R. Dhar*, decomposition of nitrous acid by light and by catalysts, ii, 691.
- Mukherjee, *D. H.* See *S. B. Schryver*.
- Mukherjee, *J.*, action of silica on electrolytes, ii, 962.
- Mukherjee, *J.* See also *J. C. Ghosh*.
- Mukherjee, *J. N.*, interaction between silica and electrolytes in its relation to theories of soil acidity, i, 488.
- adsorption of acids by purified silica, ii, 383.
- nature of hydrolytic adsorption with reference to the adsorption of electrolytes and of water. I. General and theoretical introduction, ii, 1149.
- Mukherjee, *J. N.*, and *B. N. Ghosh*, coagulation of hydrosols by mixtures of electrolytes and ionic antagonism, ii, 394.
- Mukherjee, *J. N.*, and *H. L. Ray*, electro-osmotic experiments on intensity of adsorption of a constituent ion by an insoluble salt. I, ii, 385.
- Mullaly, *J. M.*, chemical deposits of a regular form, ii, 801.
- Mullaly, *J. M.*, and *H. Jacques*, diffusion of mercury and iodine vapours through nitrogen, ii, 27.
- Muller, *A.*, structure of stearic and stearolic acids, ii, 748.
- Muller, *E. F.* See *E. Knecht*.
- Muller, *J. A.*, and (*Mile.*) *E. Peytral*, sudden pyrogenic decomposition of methyl formate and the principle of minimum molecular deformation, i, 353.

- Mulliken, R. S.**, electronic states of the CN molecule, ii, 18.
isotope effect in band spectra. I., ii, 259.
isotope effect in band spectra. II. Spectrum of boron monoxide, ii, 346.
band of unusual structure probably due to a highly unstable calcium hydride molecule, ii, 469.
isotope effect in the spectrum of silicon nitride, ii, 731.
isotope effect in band spectra. III. Spectrum of copper iodide as excited by active nitrogen, ii, 833.
isotope effect in band spectra. IV. Silicon nitride, ii, 1020.
- Mulsow, and Paine**, production of hydrogen sulphide by members of the colon group of bacteria, i, 1510.
- Mumm, O.** [with *K. Behrens, A. von Fischer-Treuenfeld, G. Hingst, W. Lund, O. Mrozek, J. Sönksen, and O. Tonn*], pyridonemethides [methyl-enedihydropyridines], i, 964.
- Mund, W.**, number of ions produced in a spherical volume by radium emanation (radon), ii, 732.
- Mund, W., and W. Koch**, chemical change of some gaseous hydrocarbons by radioactive radiations, i, 625.
polymerisation of acetylene under the action of α -particles, ii, 1173.
- Munesada, T.**, chemical constituents of *Matteuchia orientalis* (Hk.), Trev. I., i, 620.
- Munro, L. A., and F. M. G. Johnson**, adsorption of vapours by alumina, ii, 191.
- Munsell, H. E.** See *H. C. Sherman*.
- Munzing, E.** See *A. Eibner*.
- Murai, J.**, synthesis of a homologue of zingerone, 4-hydroxy-3-methoxyphenylethyl *n*-amyl ketone, i, 1157.
synthesis of *m*-hydroxyphenylethyl methyl ketone and β -3-hydroxy-4-methoxyphenylethyl methyl ketone (*isozingerone*), i, 1157.
- Muraour, H.** See *M. Marquoyrol*.
- Murch, W. O.** See *H. King*.
- Murmann, E.**, reaction for magnesium and calcium and for rubidium and caesium, ii, 437.
proving identity of two organic compounds, ii, 719.
- Murray, A. G.**, scrubber for ammonia distillates, ii, 236.
apparatus for the precipitation of barium sulphate, ii, 236.
- Murray, A. G.** See also *S. Falkin*.
- Murray, C. D., and A. B. Hastings**, maintenance of carbonic acid equilibrium in the body, i, 1342.
- Murray, C. D., and W. O. P. Morgan**, oxygen exchange, blood, and the circulation; factors involved in oxygen supply, i, 1481.
- Murray, C. D.** See also *L. J. Henderson*.
- Murray, H. A.**, physiological ontogeny. A. Chicken embryos. II. Catabolism; chemical changes in fertile eggs during incubation, i, 1353.
- Murray, H. D.**, hydrolysis of iodine as measured by the iodine electrode, i, 555.
composition of starch iodide, i, 889.
colour test for aniline and toluidine, ii, 163.
portable gas analysis apparatus, ii, 593.
- Murray, M. M.**, determination of iron in small quantities in biological substances, i, 183.
determination of ammonia and urea in blood and urine, i, 710.
- Mussehl, F. E.** See *C. W. Ackerson*.
- Myers, C. H.** See *H. Gilman*.
- Myers, C. N., and H. B. Corbitt**, neurosyphilis. II. Retention and elimination of silver with special reference to silver salvarsan and silver therapy, i, 611.
- Myers, C. N.** See also *L. H. Cornwall, and J. A. Fordyce*.
- Myers, J. E., and W. J. Jones**, fractionating column with moving parts, ii, 428.
- Myers, J. E.** See also *E. S. Hedges*.
- Myrbäck, K.**, method for the determination of calcium and phosphorus in small quantities of blood, i, 1485.
- Myrbäck, K., and B. Everitt**, action of living yeast on lactic acid, i, 105.
- Myrbäck, K.** See also *H. von Euler*.

N.

- Naamlooze Vennootschap Philips'** Gloeilampenfabriken, separation of zirconium and hafnium, ii, 62, 63.
- Nachod, H.** See *R. J. Meyer*.
- Nachtwey, P.** See *F. Arndt*.
- Nacken, H.** See *K. Elbs*.
- Naeser, W.** See *W. A. Roth*.
- Nagai, S.** See *Y. Tanaka*.
- Nagaoka, H.**, transmutation of mercury into gold, ii, 835.
preliminary note on the transmutation of mercury to gold, ii, 1111.

- Nagaoka, H.**, and **Y. Suguira**, distribution of electric field in metal arcs and the Stark effect observed in arcs of silver, copper, magnesium, chromium, nickel, cobalt, iron, and ten other metals, ii, 171.
- Nagel, K.** See **K. A. Hofmann**.
- Nagornov, N. N.**, and **L. A. Rotinjanc**, surface of state of cyclohexane, ii, 646.
- Naidu, D. S.**, constituents of the marking nut, "*Semecarpus anacardium*," Linn., i, 1224.
- Naik, K. G.**, and **M. D. Avasare**, absorption of halogens by mercurous salts. I. Formation and properties of some complex compounds of mercury, ii, 221.
- Naik, K. G.**, and **C. S. Patel**, interaction of sulphur monochloride with organic acid amides. II., i, 121.
- Naish, W. A.**, partition of silver between lead and zinc, ii, 506.
- Nakahara, Y.** See **P. Rona**.
- Nakai, R.**, mixed dismutation of aldehydes. II., i, 360.
- Nakai, M.** See **K. Matsumiya**.
- Nakamura, G.** See **M. Kimura**.
- Nakamura, H.**, X-ray analysis of electrolytic brass, ii, 745.
- Nakamura, H.** See also **G. Bertrand**, and **K. Hess**.
- Nakamura, S.**, and **Y. Fujioka**, behaviour of some spark lines of carbon in an electric field, ii, 910.
- Nakano, I.** See **R. Nakaseko**.
- Nakaseko, R.**, and **I. Nakano**, determination of small amounts of lead in animal tissues, ii, 1205.
- Nakazono, T.**, application of liquid amalgams to volumetric analysis. I. Determination of molybdenum, titanium, and iron, ii, 1004.
- Name, R. G. van**, and **F. Fenwick**, behaviour of electrodes of platinum and platinum alloys in electrometric analysis. I. Dissimilar electrodes, ii, 594.
behaviour of electrodes of platinum and platinum alloys in electrometric analysis. II. Polarised electrodes, ii, 594.
- Nametkin, S. S.**, order of addition to cyclic double linkings. II., i, 250.
isomeric transformations. II. Isomerization of rings, i, 1054.
structure of isocamphenilone, i, 1079.
mechanism of oxidation of unsaturated compounds by permanganate, i, 1145.
- Nametkin, S. S.** [with **L. Abakumovski**, and **A. Selivanov**], isobornylane and some of its derivatives, i, 47.
- Nametkin, S. S.**, and **L. J. Briusova**, β -methylecamphenilone, i, 1078.
some simple homologues of cyclohexene and their derivatives, i, 1146.
- Nametkin, S. S.**, and **A. G. Jarceva**, isomeric transformations. IV. Anomalous hydration of pinene oxide, i, 1081.
- Nametkin, S. S.**, and **A. Zabrodin**, secondary α -nitrocamphene, i, 416.
- Nanba, M.**, artificial production of autohaemolysin, i, 1344.
- Nanji, D. R.**, and **F. J. Paton**, aluminium amalgam as a reducing agent in the sugar series, i, 117.
- Nanji, D. R.**, and **W. S. Shaw**, rôle of silica in plant growth; its assimilation and physiological relation to phosphoric acid, i, 214.
- Nanji, D. R.** See also **A. R. Ling**.
- Narayan, A. L.**, and **D. Gunnaiya**, infra-red emission and absorption of potassium vapour, ii, 737.
- Narayan, A. L.**, **D. Gunnaiya**, and **K. R. Rao**, absorption and dispersion of thallium vapour, ii, 5.
absorption of magnesium vapour, ii, 337.
- Narayan, A. L.**, and **K. R. Rao**, resonance radiation from thallium vapour, ii, 338.
absorption of light by vapours of lead, tin, bismuth, antimony, and magnesium, ii, 927.
- Narayan, A. L.**, and **G. Subrahmanyam**, absorption of electrically luminescent potassium vapour, ii, 737.
- Narayanan, B. T.** See **J. J. Sudborough**.
- Naray-Szabó, S. von.** See **E. Brummer**.
- Narbutt, J.**, approximate calculation of atomic frequencies of the inert gases, ii, 948.
simple method for the indirect determination of molecular heats of vaporisation, ii, 1140.
- Nassau, M.** See **F. Sommer**.
- Nath, D.** See **N. A. Yajnik**.
- Nathanson, J. B.**, optical constants of solid caesium, ii, 187.
- Naton, J.** See **R. Dietzel**.
- Natta, G.** See **G. R. Levi**.
- Nau, C. A.**, **E. B. Brown**, and **J. R. Bailey**, methylene-citric anhydride; aniline derivatives of citric and aconitic acids, i, 1379.
- Naumann, W.** See **K. Schaum**.
- Naves, R.** See **J. F. Durand**.
- Navias, L.**, and **W. P. Davey**, differentiation between mullite and sillimanite by their X-ray diffraction patterns, ii, 1127.

- Naylor, N. M.** See *H. C. Sherman*.
- Neale, S. M.**, elasticity and tensile strength of starch, ii, 783.
- Neale, S. M.** See also *F. D. Farrow*.
- Neber, P. W., K. Hartung, and W. Ruopp**, stereoisomeric forms of *o*-nitrobenzyl methyl ketoxime, i, 1072.
- Needham, D. M.** See *J. Needham*.
- Needham, J.**, inositol. III. Metabolic behaviour of *D*-inositol in the developing avian egg, i, 192.
- Needham, J., and D. M. Needham**, hydrogen-ion concentration and the oxidation-reduction potential of the cell interior; a micro-injection study, i, 1012.
- Neergaard, K. von**, intravenous silver therapy. II. Influence of body electrolytes on the solubility of silver salts, i, 1212.
- intravenous silver therapy. III. Solubility of silver salts in blood, i, 1357.
- Neeteson, P. A.** See *M. A. H. van den Hout*.
- Negelein, E.**, glycolysis, i, 856.
- Negoshi, K.**, preparation of alcohol by catalytic reduction of acetaldehyde, i, 1375.
- Negresco.** See *Banu*.
- Neill, J. M.**, oxidation-reduction of hæmoglobin and methæmoglobin. I. Changes induced by *Pneumococcus* and by sterile animal tissues, i, 868.
- oxidation-reduction of hæmoglobin and methæmoglobin. II. Oxidation and reduction of methæmoglobin by anaërobic bacteria and by sterile plant tissue. III. Formation of methæmoglobin during the oxidation of auto-oxidisable substances. IV. Inhibition of "spontaneous" formation of methæmoglobin, i, 993.
- Neill, J. M., and O. T. Avery**, oxidation and reduction by *Pneumococcus*. VI. Oxidation of enzymes in sterile extracts of *Pneumococcus*. VII. Enzyme activity of sterile filtrates of aerobic and anaërobic cultures of *Pneumococcus*, i, 340.
- oxidation and reduction by *Pneumococcus*. VIII. Nature of the oxidation-reduction systems in sterile *Pneumococcus* extracts, i, 867.
- Neill, J. M., and A. B. Hastings**, influence of tension of molecular oxygen on oxidations of hæmoglobin, i, 709.
- Neithammer, A.**, action of photocatalysers on the bursting of buds and on germination of seeds, i, 1023.
- Nelson, D. H.** See *J. E. Greaves*.
- Nelson, E. K.**, non-volatile acids of the blackberry, i, 618.
- non-volatile acids of the strawberry, pineapple, raspberry, and Concord grape, i, 762.
- Nelson, E. M., and H. Steenbock**, fat-soluble vitamins. XXI. Alleged growth-promoting properties of air irradiated with ultra-violet light, i, 484.
- fat-soluble vitamins. XXIV. Non-precipitability by digitonin of the antiophthalmic and antirachitic substances from cod-liver oil, i, 1020.
- Nelson, J. M., and O. Bodansky**, mutarotation as a factor in the kinetics of invertase action, i, 1008.
- Nelson, J. M., and B. Freeman**, hydrolysis of sucrose by invertase in presence of α -methylglucoside. I., i, 739.
- Nelson, J. M., and C. T. Sottery**, influence of dextrose and lævulose on rate of hydrolysis of sucrose by invertase from honey, i, 104.
- Nelson, M. T.** See *H. Steenbock*.
- Nelson, O. A., and H. Wales**, vapour pressures and boiling points of mono- and di-methylanilines and mono- and di-ethylanilines, ii, 494.
- Némec, A.**, hydrogen-ion concentration in seeds, i, 871.
- Némec, A., and M. Gracanin**, influence of the soil reaction on absorption of phosphorus and of potassium in presence of various phosphatic manures, i, 1228.
- Nemec, A.** See also *K. Kvpil*.
- Nejadkevitch, W.**, occurrence of hydrogen sulphide in limestone and dolomite, ii, 997.
- Neitzescu, C.**, synthesis of indole, i, 973.
- Neitzescu, C.** See also *Hans Fischer*.
- Neškovic, M.**, action of chloral hydrate on the proteins of blood-serum, i, 716.
- Netschajeva, N.** See *A. Predvoditelev*.
- Nette, M.** See *G. F. Hüttig*.
- Neuberg, C.**, yeast enzymes, i, 336.
- Neuberg, C., and G. Gorr**, fermentation of oxalacetic acid, i, 337.
- Neuberg, C., and A. Gottschalk**, formation of acetaldehyde in animal organs (acetone liver), i, 199.
- anaërobic respiration in plants, i, 213.
- fermentation of dihydroxyacetone, i, 337.
- significance of acetaldehyde production in frog's muscle, and its manifold relationships to respiration, i, 859.

- Neuberg, C.**, and **M. Kobel**, artificial and natural formation of sugar phosphates, i, 476.
phosphorylation of sugar, i, 1508.
- Neuberg, C.**, and **E. Simon**, carboligase. VIII. Biochemical acyloin synthesis, i, 737.
sulphatase. V. Animal sulphatase, i, 743.
- Neuberg, C.** See also **A. Gottschalk**.
- Neubert, H.**, birefringency and dichroism in dyed gels, ii, 201.
- Neuenschwander, N.** See **P. Hodel**.
- Neuffer, L.**, and **A. L. Hoffman**, alkyl derivatives of hydroxyurethane and hydroxylamine, i, 891.
- Neukirch, P.** See **E. Boden**.
- Neumann, A.**, nature, properties, and preparation of the eosinophile granule substance of the blood. II. Chemical and physical, i, 94.
- Neumann, B.**, and **E. Fuchs**, decomposition of sulphur chloride by water, ii, 410.
- Neumann, B.**, and **K. Jacob**, equilibrium proportions in the formation of methane from carbon monoxide and hydrogen, and from carbon dioxide and hydrogen, ii, 532.
- Neumann, B.**, and **G. Müller**, heat of formation of calcium hypochlorite, ii, 488.
- Neumann, B.**, and **H. Richter**, potentials of the alkali metals determined by the measurement of decomposition voltages of molten alkali chlorides, bromides, and iodides, ii, 797.
potentials of metals of the alkaline earths and the rare earths determined by measurement of the decomposition potentials of the molten chlorides, bromides, and iodides, ii, 797.
potential of fluorine from measurements of the decomposition voltages of fused fluorides, ii, 1164.
- Neumann, F.**, stability relations of the modifications of the polymorphous system Al_2SiO_5 , ii, 849.
- Neuschloss, S. M.** See **A. H. Roffo**.
- Newbery, E.**, overvoltage and transfer resistance, ii, 405.
- Newbery, G.**, action of alkali hydroxide on α -bromo- α -ethylbutyrylcarbamide, i, 375.
determination of arsenic in organic compounds, ii, 901.
- Newcomer, E.** See **P. M. Dean**.
- Newey, A. H.** See **J. H. Crowe**.
- Newham, H. B.**, **H. G. Wiltshire**, and **J. W. Scharff**, determination of hæmoglobin, i, 711.
- Newitt, D. M.** See **W. A. Bone**, and **D. S. Chamberlin**.
- Newman, F. H.**, low-voltage arcs in sodium and potassium vapours, ii, 450.
spectrum of sodium at low voltages, ii, 723.
low-voltage arcs in rubidium and caesium vapours, ii, 829.
spectrum of potassium at low voltages, ii, 1014.
- Newman, R. K.**, determination of water in mixtures of ether, alcohol, and water, ii, 156.
- Nicholas, S. D.** See **E. A. Cooper**.
- Nicholls, F. H.** See **W. Wardlaw**.
- Nichols, E. F.**, and **J. D. Tear**, joining the infra-red and electric-wave spectra, ii, 917.
- Nichols, E. L.**, neodymium oxide, ii, 259.
visible radiation from niobium oxide, ii, 350.
- Nichols, M. L.**, and **S. R. Cooper**, qualitative tests for copper, iron, and cobalt, ii, 715.
- Nichols, M. L.** See also **F. H. Rhodes**.
- Nicholson, J. W.**, secondary spectrum of hydrogen, ii, 468.
hydrogen spectrum of constant frequency-difference, ii, 721.
general nature of band spectra, ii, 930.
- Nickel, G.** See **K. Brass**.
- Nicklin, G. N.** See **J. A. Aeschlimann**.
- Nicloux, M.**, normal presence of carbon monoxide in the blood, i, 821.
determination of carbon monoxide by hæmoglobin absorption, ii, 824.
use of the Cornec-Cottet pipette in the measurement of small volumes in micro analysis, ii, 898.
- Nicloux, M.**, and **J. Roche**, oxygen content of methæmoglobin, i, 993.
- Nicloux, M.**, and **A. Yovanovitch**, fixation of chloroform by the central nervous system and the peripheral nerves, i, 195.
- Nicolas, E.**, and **G. Nicolas**, hexamethylenetetramine as a nutrient for the kidney bean and for white mustard (*Sinapis alba*), i, 623.
effect of urea, thiourea, and allylthiourea on the higher plants, i, 757.
- Nicolas, G.** See **E. Nicolas**.
- Nicolau, S.** See **A. Fernbach**, and **C. Levaditi**.
- Nicolayssen, N. A.**, retention and excretion of nitrogen in hypertrophy of the prostate, i, 857.

- Nicolet, B. H.**, and **J. Sacks**, 3-nitrophthalic anhydride as a reagent for alcohols, i, 1277.
- Niel, C. B. van**, and **F. V. Hooft**, incorrect application of biological agents in organic chemistry, i, 1237.
- Nielsen, J. R.**, influence of temperature on the photo-electric effect, ii, 172.
- Niemann, G.**, absorption coefficient of mesobilirubinogen and coproporphyrin, i, 1206.
- Niemann, G.** See also **H. Fischer**.
- Niemann, W.** See **A. Gutbier**.
- Niemeyer, F.** See **K. von Anwers**.
- Nierenstein, M.**, constitution of catechin. VII. 4:5:7:3':4'-Pentahydroxyflavan, i, 279.
- Nierenstein, M., C. W. Spiers**, and **A. C. Hadley**, gallotannin. XIV. Action of yeast on gallotannin, i, 951.
- Nierenstein, M., C. W. Spiers**, and **P. R. Hatcher**, gallotannin. XIII. Identity of digallic acid from gallotannin with synthetic *m*-digallic acid, i, 692.
- Nierenstein, M., D. G. Wang**, and **J. C. Warr**, action of diazomethane on some aromatic acyl chlorides. II. Synthesis of fisetol, i, 34.
- Nierenstein, M.** See also **H. F. Dean**, **A. I. M. Kahil**, and **H. H. Lewis**.
- Niethammer, W.** See **E. Heuser**.
- Niggli, P.**, homogeneous equilibria in magmatic melts and their bearing on the processes of igneous rock formation, ii, 784.
- Nightingale, D.** See **R. T. Dufford**.
- Nikiforovski, P. M.**, anthocyanins, i, 1224.
- Nikitin, N.**, Thomson circuit in the study of magnetic spectra, ii, 173.
- Niklas, H.**, and **A. Hock**, universal indicator for the colorimetric determination of p_H values in soil experiments, i, 348.
- application and importance of electrometric titration to the determination of soil reactivity, i, 763.
- exchangeable acidity of the soil and the relation between actual and titratable acidity, i, 1525.
- comparison of the methods for the estimation of hydrogen-ion concentration in soils, i, 1526.
- significance of electrometric titration in the estimation of the lime requirements of soils, i, 1526.
- colorimetric determination of hydrogen-ion concentration in soils, ii, 325.
- electrometric titration with the use of quinhydrone, ii, 595.
- Niklas, H.**, and **F. Vogel**, diphenylamine reaction in problems of plant nutrition, i, 213.
- Nikolić, N.** See **H. Křepelka**.
- Nilsson, R.** See **H. von Euler**.
- Nipper, W. W.**, spectroscopic evidence of *J* transformation of X-rays, ii, 727.
- Nipper, W. W.** See also **O. K. DeFoe**.
- Nishi, S.**, determination of small quantities of carbon dioxide, ii, 1001.
- determination of small amounts of carbon dioxide, ii, 1001.
- Nishina, Y.**, *L*-absorption spectra of the elements from Sn(60) to W(74) and their relation to atomic constitution, ii, 457.
- Nishina, Y.** See also **D. Coster**.
- Nitschke, A.**, micro-method for the determination of chloride in body fluids, i, 1485.
- Nitzescu, I.**, and **I. Cadariu**, glycolysis *in vivo* with normal and depancreatized dogs; action of insulin, i, 1352.
- insulin and cholesterol metabolism, i, 1364.
- Nitzescu, I. I.**, and **J. Cosma**, oxidising enzymes in the constituents of the seeds of French and soya beans, i, 471.
- insulin and the oxydases of muscle, i, 482.
- Nitzescu, I. I., C. Popescu-Inotesti**, and **I. Cadariu**, cholesterolemia and cholesterolysis in experimental diabetes, i, 462.
- Noack, E.**, decomposition of sulphur monochloride by water, ii, 989.
- Noback, C. V.** See **R. S. Hubbard**.
- Noble, E. C.** See **G. S. Eadie**, and **N. A. McCormick**.
- Nocentini, D.** See **A. Pieroni**.
- Noda, M.** See **H. Ota**.
- Noddack, W.**, **I. Tacke**, and **O. Berg**, two new elements of the manganese group, ii, 939.
- Noddack, W.** See also **J. Eggert**.
- Nodzu, R.** See **S. Komatsu**.
- Nöhren, M.** See **K. Fries**.
- Nogaki, S.**, fate of yeast invertase in the animal organism, i, 745.
- Nolan, L. S.** See **A. Chibnall**.
- Nolan, T. J.**, and **H. W. Clapham**, preparation of benzyaniline, i, 805.
- Noll, A.**, "chloramine" as a substitute for iodine in chemical analysis, ii, 66.
- Nolte, O.**, neutral salt decomposition by silicic acid, i, 488.
- Nomura, H.**, preparation of zingerone, i, 1157.

- Nomura, H.**, and **S. Hotta**, relation between chemical constitution and pungency; synthesis of the reduction products of zingerone and di- β -4-hydroxy-3-methoxyphenylethyl ketone, i, 1156.
 synthesis of the homologues of zingerone, i, 1156.
- Nonhebel, G.**, and **H. B. Hartley**, activity coefficients and transport numbers of solutions of hydrogen chloride in methyl alcohol, ii, 1061.
- Nonhebel, G.** See also **S. R. Pike**.
- Norberg-Schulz, C.** See **F. Foerster**.
- Norbury, A. L.**, effects of certain elements on the electrical resistivity of copper, ii, 273.
- Nord, F. F.**, and **G. G. Schweitzer**, chaulmoogra and margosa oils and heterogeneous catalysis, i, 734.
- Nordefeldt, E.**, purification and properties of hydroxynitrilese, i, 1506.
- Normann, W.**, electrolytic gas explosions, ii, 996.
- Normark, P.** See **A. Palladin**.
- Norris, E. R.** See **A. W. Thomas**.
- Norris, F. W.**, and **S. B. Schryver**, pectic substances of plants. III. Nature of pectinogen and its relation to pectic acid, i, 1226.
- Norris, J. F.**, and **A. A. Ashdown**, reactivity of atoms and groups in organic compounds. I. Relative reactivities of hydroxyl-hydrogen atoms in certain alcohols, i, 626.
- Norris, J. F.**, and **E. O. Cummings**, electrolytic preparation of *p*-phenylenediamine, aminosalicic acid, succinic acid, and hydrocinnamic acid, i, 668.
- Norris, J. F.**, and **R. C. Young**, preparation of triphenylmethane and the action of heat on the ethers and esters derived from triphenylcarbinol, i, 20.
- Norris, W. S. G. P.** See **C. F. Birch**.
- Norrish, R. G. W.**, rôle of water in the photosynthesis of hydrogen chloride, ii, 1080.
 photochemical union of hydrogen and chlorine, ii, 1179.
- Norrish, R. G. W.**, and **E. K. Rideal**, photosensitive formation of water from its elements in the presence of chlorine, ii, 572.
- North, E. O.**, and **G. D. Beal**, silico-dodecatungstic acid [determination of alkaloïds], ii, 607.
- Northrop, J. H.**, kinetics of the decomposition of hydrogen peroxide by catalase, i, 469.
- Northrop, J. H.**, test for diffusible ions. II. Ionic nature of pepsin, i, 864.
- Northrop, J. H.** See also **H. Clark**.
- Norton, A. J.** See **W. G. Christiansen**.
- Norton, J. T.**, X-ray study of cyanite and andalusite, ii, 1127.
- Nothmann, M.**, distribution of insulin in the organs of normal and depancreatised dogs, i, 1219.
- Noty, P. L. du**, [uni-molecular films of sodium oleate on water]; determination of the constant *N* of Avogadro, ii, 109.
 determination of surface tension by the ring method (torsion balance), ii, 279.
 apparatus for the rapid measurement of surface tension at the interface of two liquids; influence of temperature, ii, 647.
 determination of molecular dimensions and of Avogadro's number from colloidal solutions, ii, 844.
 dimensions of the molecule and molecular weight of crystalline egg-albumin, ii, 939.
 highly sensitive physical method for detecting proteins in a solution, ii, 1212.
- Nourisson, A.** See **M. Martini**.
- Novelli, A.**, colour reaction for nitrites, ii, 900.
- Nowak, G.** See **H. Lüers**.
- Noyes, A. A.**, and **W. P. Baxter**, inter-ionic attraction theory of ionised solutes. III. Testing of the theory in alcoholic solvents, ii, 970.
- Noyes, A. A.**, and **W. C. Bray**, systematic detection of the rarer chemical elements, ii, 242.
- Noyes, A. A.**, and **H. W. Estill**, effect of insulin on the lactic fermentation, i, 107.
- Noyes, H. M.**, and **K. G. Falk**, enzyme action. XXIX. Lipolytic actions of rabbit tissues, i, 471.
- Noyes, H. M.** See also **K. G. Falk**.
- Noyes, W. A.**, simple differential air thermometer for use at low temperatures, ii, 896.
 attempt to prepare nitro-nitrogen trichloride. III. Failure to obtain a compound containing only nitrogen and chlorine from oxides of nitrogen, ii, 988.
 preparation of nitric oxide from sodium nitrite, ii, 993.
 formation of polar compounds by photochemical reactions, ii, 1081.
- Noyes, W. A.**, and **W. F. Tuley**, heat of formation of nitrogen trichloride, ii, 644.

- Noyes, W. A., jun.**, photochemical studies. III. Reaction between nitrogen and hydrogen in presence of mercury vapour: resonance radiation of mercury, ii, 573.
- Noziczka, F.** See *H. John*.
- Nunan, T. H.**, and *J. K. Marsh*, fluorescence spectra. III. Aromatic amine vapours, ii, 353.
- Nunn, G. R.** See *E. B. R. Prideaux*.
- Nyberg, H. D.**, zinc-carbon battery, ii, 42.
- Nylén, P.**, organic compounds of phosphorus, i, 1134.
- Nyssens, P.**, use of phenolphthalein as an indicator for the determination of phosphoric acid by titration of ammonium phosphomolybdate, ii, 1201.
- O.**
- Oberhauser, F.**, bromometric determination of thiocyanates and cyanides, ii, 828.
- Oberhauser, F.** See also *W. Manchot*.
- Oberhelman, H. A.**, and *H. A. Dyniewicz*, metabolism study of ethylene anaesthesia, i, 862.
- Oberlin, H.** See *P. Pfeiffer*.
- Oberlin, M.** See *J. Gadamer*.
- Oberwien, E.** See *H. Goldschmidt*.
- Obogi, R.** See *A. Kailan*.
- Obrist, J.** See *J. Holluta*.
- Obrutsheva, A.** See *G. von Hevesy*.
- Ochotnikova, A. J.** See *B. A. Lavrov*.
- O'Connell, M. T.** See *R. H. Bogue*.
- O'Connor, M. F.** See *W. G. Lennox*.
- Odaki, S.** See *U. Suzuki*.
- Oddo, B.**, magnesylpyrrole and its use in the synthesis of pyrrole compounds, i, 295.
methylketole-yellow, i, 588.
syntheses by means of magnesylpyrrole VI. Constitution of the pyrrolenephthalides, i, 978.
- Oddo, B.**, and *Q. Mingola*, syntheses by means of magnesylpyrrole. V. Pyrrolenephthalides, i, 978.
- Oddo, G.**, modification of Geissler's bulbs, ii, 431.
nitration and constitution of naphthalene, i, 804.
periodic classification of the elements and the electrical constitution of atoms and of valency, ii, 623.
- O'Dwyer, M. H.**, pectic substance in beech wood, i, 1225.
- Oechslein, C.** See *Les Établissements Poulenc Frères*.
- Oehme, C.** [with *H. Paal*], water-salt content of the human organism in relation to the acid-base economy. II. Physiological ionic equilibrium and mineral metabolism, i, 326.
- Ölander, A.** See *H. von Euler*.
- Oesper, R. E.**, and *M. P. Ballard*, hydroxylamine salts of organic acids, i, 1233.
- Oesper, R. E.**, and *W. Broker*, new hydroxyurethanes and chromoisomeric silver salts of their acyl derivatives. III., i, 1407.
- Oesper, R. E.**, *W. Broker*, and *W. A. Cook*, new chlorocarbonates [chloroformates] derived from aromatic and dihydric alcohols, i, 1408.
- Oesper, R. E.**, and *W. A. Cook*, new hydroxyurethanes and chromoisomeric silver salts of their acyl derivatives, i, 523.
- Oesterle, D. A.**, and *G. Wander*, "hesperidin" from various plants, i, 1438.
- Oesterlin, H.** See *F. Knoop*.
- Ogawa, I.**, fat-hydrolysing enzyme of taka-diastase, i, 103.
- Ogawa, S.**, adrenaline secretion during starvation, i, 1218.
- Ogden, K.**, and *R. Adams*, carboxy-quinolylphenylarsinic acid and derivatives, i, 706.
- Ogden, W. H.** See *H. J. M. Creighton*.
- Ohle, H.**, and *W. Bourjau*, compounds of sugars with sulphuric acid. I., i, 634.
- Ohlmer, E.** See *A. Morgen*.
- Ohri, D. D.** See *S. S. Bhatnagar*.
- Ohse, W.** See *W. Steinkopf*.
- Oikawa, S.**, cetacea. XIX. Composition of tendon and sclera; separation of *D*- α -aminobutyric acid from sclera protein, i, 1349.
cetacea. XXII. Cartilage, i, 1349.
- Okagawa, M.**, stereoisomerism and cell-permeability, i, 711.
- Okahara, Y.**, cetacea. XV. Composition of the blood of the fin-back whale, i, 1349.
- Okazaki, K.**, cetacea. XIII. Contents of genital cysts; composition of fluid found in the uterus, i, 1348.
- Ôkubo, J.** See *R. Seeliger*.
- Okubo, Y.** See *K. Honda*.
- Olbrich, W.** See *O. Ruff*.
- Oldenberg, O.**, influence of magnetic and electrical fields on ultra-violet fluorescence of iodine, ii, 88.
fluorescence radiation of nitrogen, ii, 1116.
- Oldenberg, O.** See also *G. Cario*.

- Oliver, *J.*, and *L. Barnard*, effect of valency of cations and anions on negatively and positively charged red blood cells, i, 94.
- Oliveri-Mandalà, *E.*, action of hydrazine on cyanotetrazole, i, 78.
- imino group, ii, 815.
- Olivier, *S. C. J.*, electrolytic reduction of 2:6-dibromobenzoic acid, i, 30.
- constitution of the caoutchouc molecule, i, 566.
- Olivier, *S. C. J.*, and *G. Berger*, is the hydrolysis of esters derived from strong acids accelerated by hydrogen ions? ii, 802.
- Oman, *E.*, and *A. Gunnelius*, calculation of points in the ethyl alcohol-water distillation curve, ii, 953.
- Ongkiehong, *B. L.* See *W. P. Jorissen*.
- Onnes, *H. K.* See *G. Breit*, *E. Mathias*, *L. Vegard*, *M. Wolfke*, and *H. R. Woltjer*.
- Ono, *A.*, X-ray examination of inner structure of strained metals. III. Copper and aluminium under extension, compression, and torsion, ii, 746.
- Ono, *K.*, camphor oils. II. Reaction of Japanese acid clay to camphor white oil, i, 941.
- camphor oils. V. Sesquiterpenes and sesquiterpene alcohols of Japanese camphor oil, i, 1437.
- Onohara, *K.*, chemistry of the blood during activity of the digestive glands, i, 322.
- chemistry of the blood during parental excitation of the activity of digestive glands, especially of the stomach, i, 712.
- Onslow, (*Mrs.*) *M. W.*, and *M. E. Robinson*, oxidising enzymes. VIII. Oxidation of certain parahydroxy compounds by plant enzymes and its connexion with "tyrosinase," i, 1010.
- Oparin, *A.*, green respiration pigment of *Helianthus annuus*, i, 1517.
- retrogressive metamorphosis of proteins in germinating seeds, i, 1518.
- Opdycke, *L. H.* See *W. A. Patrick*.
- Opitz, and *Brehme*, determination of urobilin in human excreta, i, 187.
- Oppenheimer, *F.* See *H. Freundlich*.
- Orcel, *J.*, white chlorite from Madagascar, ii, 821.
- Ordelt, *H.* See *F. Feigl*.
- O'Reilly, *N. G. J.* See *J. J. Drumm*.
- Orékhov, *A.*, and *M. Roger*, semipinacolic deamination of certain amino-alcohols, i, 261.
- Orékhov, *A.* See also *M. Tiffeneau*.
- Orndorff, *W. R.*, and *W. R. Barrett*, isophenolphthalein and some of its derivatives, i, 35.
- Orndorff, *W. R.*, and *M. S. Patel*, *o*-cresoltetrachlorophthalein, some of its derivatives, and *iso-o*-cresoltetrachlorophthalein, i, 672.
- Orndorff, *W. R.*, and *C. V. Shapiro*, dimethyl and diethyl ethers of phenol-sulphonaphthalein and of *o*-cresol-sulphonaphthalein, i, 251.
- Orndorff, *W. R.*, and *C. Wang*, pyrogallolbenzein and its hydrochloride, i, 277.
- Orndorff, *W. R.* See also *D. L. Tatern*.
- Ornstein, *L. S.*, application of quanta to the electron theory of metals, ii, 733.
- intensity of multiple spectral lines, ii, 916.
- influence of radiation on chemical reactions, ii, 1077.
- Ornstein, *L. S.*, and *H. C. Burger*, fine structure of the helium line 5876 Å., ii, 4.
- intensities of multiplet-lines, ii, 251.
- intensities of components in the Zeeman effect, ii, 340.
- Ornstein, *L. S.*, *H. C. Burger*, and *W. C. van Geel*, intensity of the components in the Zeeman effect, ii, 729.
- Orr, *A. P.*, colorimetric determination of ammonia in urine, i, 184.
- Orr, *J. B.*, *H. E. Magee*, and *J. M. Henderson*, effect of ultra-violet light on the mineral metabolism of the lactating animal, i, 1210.
- Orr, *T. G.* See *R. L. Haden*.
- Orth, *O.* See *R. Stollé*.
- Ortner, *H.* See *R. Kermann*.
- Orton, *J. H.*, conditions for calcareous metabolism in oysters and other marine animals, i, 1002.
- Oryng, *T.*, negative adsorption and oxidising action of suspended charcoal, ii, 656.
- Osada, *S.*, conversion of alkaloids of the "aporphine" series into those of the chelidonine series, i, 283.
- Osaka, *Y.*, and *K. Ando*, equilibria in the system, mercuric chloride, ammonium chloride, potassium chloride, and water at 25°, ii, 123.
- Osawa, *A.*, X-ray examination of the inner structure of various calcium carbonates, ii, 745.
- atomic structure of palladium and platinum black containing adsorbed gases, ii, 747.
- Osborn, *D. P.*, apparatus for the determination of blood nitrogen by Folin's method, i, 323.

- Osborne, N. S., H. F. Stimson, and T. S. Sligh, jun.**, flow calorimeter for specific heats of gases, ii, 995.
- Osborne, N. S., H. F. Stimson, T. S. Sligh, and C. S. Cragoe**, specific heat of superheated ammonia vapour, ii, 643.
- Oseen, C. W.**, possible explanation of the Ingersoll non-magnetic nickel film, ii, 734.
- Osgood, T. H.** See *J. F. Lehmann*.
- Ossetrova, E. D.** See *A. E. Tschitschibabin*.
- Osterhout, W. J. V.**, importance of maintaining certain differences between cell sap and external medium, i, 720.
is living protoplasm permeable to ions? i, 1355.
- Osterhout, W. J. V., and M. J. Dorcas**, contrast in the cell sap of valonias and the problem of flotation, i, 863.
- Ostermann, F.**, equilibrium in the liquid system, iron-copper-manganese with varying small proportions of carbon, ii, 1050.
- Osterroth, J.** See *W. Lipschitz*.
- Ostwald, U.** See *A. Schönberg*.
- Ostwald, Wolfgang**, quantitative filtration as a method for the analysis of dispersoids, ii, 198.
velocity function of the viscosity of disperse systems. I., II., and IV., ii, 291, 392, 663.
theory of Liesegang rings, ii, 530.
- Ostwald, Wolfgang, A. Kuhn, and E. Böhme**, relation between swelling of gelatin and hydrogen-ion concentration, ii, 777.
- Ostwald, Wolfgang, and Herbert Schulze**, S-shaped adsorption curves and their calculation, ii, 657.
- Ostwald, Wolfgang, and A. Steiner**, foaming power and surface tension, especially of humus sols, ii, 771.
- O'Sullivan, J. B.**, application of the quinhydrone electrode to the measurement of p_H values in solutions containing copper ions and other bivalent ions, ii, 822.
- Oswald, M., and E. Pinta**, oxidation of coal and of its naphthalene extracts, i, 793.
- Ota, H., and M. Noda**, oxydase-like actions of colloidal silicates, ii, 203.
- Otani, B.**, equilibrium diagram of the binary alloys of antimony and bismuth, ii, 533.
- Otani, Z.**, fate of pyruvic acid in the animal body and in the surviving liver, i, 731.
- Ott, E.**, H. Finger's investigations on the preparation of "cyanurtriazide," i, 599.
transformations of carbon monoxide under the influence of the silent electric discharge, ii, 579.
- Ott, E., and H. Finken**, [simple cyano and cyanuric compounds. III. Malononitrile and its halogenation], i, 1251.
- Ottens, B.** See *K. von Auwers*.
- Ottenssoos, F.** See *F. Fischler*.
- Otto, J.** See *L. Holborn*.
- Oudt, F. W.**, measurement of intensity ratios of doublets of alkali metals in the principal series, ii, 915.
- Overbeck, W.** See *B. Bruckner*.
- Owen, E. A., N. Fleming, and W. E. Fage**, absorption and scattering of γ -rays, ii, 84.
- Owen, E. A., and G. D. Preston**, atomic structure of two intermetallic compounds, ii, 93.
- Owens, A. E.** See *W. A. Patrick*.
- Ozawa, T.**, wood cellulose. III. Purity of wood cellulose, i, 234.

P.

- Paal, C., and H. Boeters**, catalytic action of colloidal metals of the platinum group. XVII. Colloidal cobalt, ii, 1072.
colloidal cobaltic hydroxide, ii, 1090.
- Paal, H.** See *C. Oehme*.
- Paasch, E.**, feedings of goats on ammonium acetate, urea, and horn meal as protein substitute, i, 1498.
- Pacsu, E.**, degradation of mercaptals of monosaccharides and a new synthesis of alkyl glucosides, i, 515.
methyl derivatives of d -glucose, i, 1242.
- Pack, G. T.** See *F. P. Underhill*.
- Padelt, E.** See *M. Bodenstein*.
- Padoa, M.** [with *N. Vita*], variation of temperature coefficients of photochemical reactions with the frequency, ii, 415.
- Padoa, M., and B. Foresti**, new determinations with the micro bomb calorimeter. II., ii, 847.
- Paechtner, J.**, nephelometric investigations on the breakdown of glycogen by salivary diastase, i, 738.
- Paffrath, H.** See *E. Abderhalden, and E. Wertheimer*.
- Page, H. J., and W. Williams**, base exchange in Rothamsted soils, i, 222.

- Page, L.**, proof of the invariance under the Lorentz transformation of the equation of motion of the electron, ii, 80.
 Balmer law as an equation of motion, ii, 468.
- Paget, H.** See *T. A. Henry*.
- Paget, M.** See *D. Raquet*.
- Pagniez, P., F. Coste, and I. Solomon**, effect of *X*-rays on the acid-base equilibrium of blood, i, 1201.
- Paillard, H.** See *E. Briner*.
- Paine.** See *Mulsoy*.
- Palacios, J.**, theory of emission in the Rutherford-Bohr atom, ii, 835.
- Palazzo, F. C., and E. Alinari**, essential oil of *Meriandra benghalensis*, Benth., i, 418.
 new constituent in oil of juniper, i, 565.
- Palit, C. C., and N. R. Dhar**, induced oxidation of carbohydrates, i, 1401.
- Palit, N.** See *P. C. Mitter*.
- Palkin, S., and H. M. Evans**, preparation of brilliant Congo R ("vital-red") and the suitability of various samples for blood volume work, i, 599.
- Palkin, S., A. G. Murray, and H. R. Watkins**, automatic devices for extracting alkaloidal solutions, ii, 708.
- Palkin, S., and H. Wales**, azo dyes from alkaloids of *ipecacuanha* root and their identification by means of the spectroscope, i, 1087.
- Palladin, A.**, excretion of creatinine and creatine by sheep in normal and fasting conditions, i, 327.
 biochemistry of experimental scurvy. I., i, 330.
- Palladin, A., and W. Bjeljaeva**, aminogenesis in the grey and white substances of the brain during hunger. II. Rabbit's brain, i, 190.
- Palladin, A., and K. Kratinova**, biochemistry of experimental scurvy. VI. Influence of a maize diet on the creatinine- and creatine-nitrogen excretion of rabbits and on the weight curves of guinea-pigs, i, 1514.
- Palladin, A., and A. Kudrjavzeva**, biochemistry of experimental scurvy. II. Nitrogen metabolism (in particular creatine metabolism) in experimental scurvy, i, 330, 461.
- Palladin, A., and P. Normark**, biochemistry of experimental scurvy. III. Blood enzymes in experimental scurvy, i, 461.
- Palladin, A., and E. Sawron**, biochemistry of experimental scurvy. IV. Calcium excretion and blood calcium in experimental scurvy, i, 461.
- Palladin, V.**, effect of insufficient feeding with carbohydrates and protein on the excretion of creatine and creatinine, i, 1211.
 effect of wounding on the respiration of plants, i, 1221.
 effect of light on the growth of isolated etiolated bean leaves, i, 1517.
 effect of light on the growth and formation of chlorophyll in isolated etiolated and green leaves, i, 1518.
- Palladin, V., and E. Hübbenet**, absorption of ultra-violet light by plants, i, 1223.
- Palladin, V., and V. Illjuvjev**, zymase formation in plants, i, 1519.
- Palladin, V., and V. Levtschenko**, glycuronic acid in plants, i, 1369.
- Palladin, V., and E. Lovtschinovskaja**, decomposition of oxalic acid by plants, i, 1222.
- Pallauf, F.** See *A. Eibner*.
- Palmaer, W.**, presentation of the periodic system, ii, 90.
- Palmer, W. G., and F. H. Constable**, catalytic activity of copper. V. Comparison of the rates of dehydrogenation of various alcohols, ii, 311.
- Palmer, W. H.** See *W. H. Mills*.
- Paneth, F.**, active hydrogen, ii, 57.
- Paneth, F., W. Haken, and E. Rabinovitsch**, preparation and properties of pure tin hydride, ii, 60.
- Paneth, F., and G. Joachimoglu**, pharmacological properties of tin hydride and germanium hydride, i, 197.
- Paneth, F., and E. Rabinovitsch**, preparation of tin hydride by cathodic reduction, ii, 59.
- Paneth, F., and E. Rabinovitsch** [with *W. Haken*], the group of volatile hydrides, ii, 760.
- Paneth, F., and E. Thilo**, compounds of nickel and copper with diacetyldioxime, i, 1132.
- Panichi, U.**, specific gravities of minerals and crystallised chemical compounds, ii, 64.
 specific gravity of solid binary compounds, ii, 493.
- Panicker, P. B.** See *B. S. Rao*.
- Panisset, L., J. Verge, and V. Carneiro**, action of distilled water and physiological salt solution on the vitality of bacteria, i, 339.
- Panizzon-Favre, G.**, attempts to synthesise 2-nitro-1:4-naphthaquinone, i, 144.

- Pankoke, K.**, β -dihydroxyadipic acid, i, 358.
- Pantin, C. F. A.**, and **L. T. Hogben**, colorimetric method for studying the dissociation of oxyhaemocyanin suitable for class work, i, 1481.
- Pantin, C. F. A.**, and **T. H. Rogers**, amphoteric substance in the radula of the whelk (*Buccinum undatum*), i, 720.
- Paoloni, C.** See **W. D. Treadwell**.
- Papaconstantinou, B.**, protective action of soaps on Zsigmondy's gold sols, ii, 393, 526.
protective action of soaps on arsenious sulphide sols, ii, 393.
- Papendieck, A.**, occurrence of porphyrin in blood-serum, i, 96.
the porphyrin of human feces. III., i, 98.
- Papendieck, A.**, and **K. Bonath**, porphyrins from blood pigment, i, 711.
- Parhon, C. J.**, and **V. Marza**, cholesterol content of the testicles and supraprenals, i, 1346.
- Parinaud, E.** See **R. Fabre**.
- Paris, G.**, alcoholic zymase and a more exact interpretation of its activity, i, 475.
- Pariselle**, rotatory power and dispersion in the terpene series, ii, 742.
- Pariselle**, and **Laupe**, co-precipitation of magnesium hydroxide with aluminium hydroxide in ammoniacal solution, ii, 903.
- Parisi, E.** See **R. Giusa**.
- Park, J. R.** See **P. C. Austin**.
- Parke, B.** See **O. Silberrad**.
- Parker, E. W.** See **H. C. Parker**.
- Parker, F. W.**, carbon dioxide content of the soil air as a factor in the absorption of inorganic elements by plants, i, 1223.
absorption of phosphate by Pasteur-Chamberland filters, i, 1372.
- Parker, G. H.**, production of carbon dioxide by nerve, i, 849.
excretion of carbon dioxide by frog nerve, i, 1353.
- Parker, H. C.**, potentiometric hydrogen-ion measurements with non-gas electrodes, ii, 899.
- Parker, H. C.**, and **G. A. Dannerth**, calomel half cells for industrial hydrogen-ion measurements, ii, 712.
- Parker, H. C.**, and **E. W. Parker**, densities of certain aqueous potassium chloride solutions as determined with a new pycnometer, ii, 288.
- Parker, H. H.** See **H. Gilman**.
- Parker, M. A.**, and **H. P. Armes**, influence of a magnetic field on certain chemical reactions, ii, 683.
- Parker, W. H.** See **W. Wardlaw**.
- Parkes, A. S.**, and **J. C. Drummond**, effect of vitamin-B deficiency on reproduction, i, 1021.
- Parkes, E. B.** See **I. M. Heilbron**.
- Parkes, G. D.** See **F. D. Chattaway**.
- Parks, G. S.**, thermal data on organic compounds. I. Heat capacities and free energies of methyl, ethyl, and *n*-butyl alcohols, ii, 491.
- Parks, G. S.**, and **K. K. Kelley**, physical chemical properties of mixtures of ethyl and isopropyl alcohols, ii, 764.
thermal data on organic compounds. II. Heat capacities of five organic compounds; entropies and free energies of some homologous series of aliphatic compounds, ii, 949.
- Parnas, J. K.**, ammonia content and formation in blood. II., i, 454.
- Parnas, J. K.**, and **J. Heller**, ammonia content and formation in blood. I., i, 323.
ammonia in blood, i, 454.
- Parnas, J. K.**, and **M. Taubenhaus**, ammonia content and formation in blood. III. Origin of blood ammonia, i, 1484.
- Parr, S. W.** See **J. E. Moose**.
- Parravano, N.**, and **G. Malquori**, solubility of oxygen in silver, ii, 769, 879.
- Parravano, N.**, and **A. Scortecchi**, modification of the structure of aluminium alloys containing large proportions of silicon, ii, 281.
- Parri, W.**, differentiation of citric from tartaric acid, ii, 162.
- Parry, J.**, and **F. E. Wright**, afwillite, a new hydrous calcium silicate, ii, 429.
- Parsons, A. T.** See **A. G. Francis**.
- Parsons, L. B.**, influence of water on certain chemical reactions. I. Effect of various concentrations of water vapour on the reaction between chlorine and potassium iodide or bromide, ii, 880.
influence of water on certain chemical reactions. II. Reaction between hydrogen sulphide and iodine in ethereal solution, ii, 880.
influence of water on certain chemical reactions. III. Reactions between certain metals and iodine, ii, 880.
- Parsons, L. B.**, and **W. S. Sturges**, conductivity method as applied to studies of bacterial metabolism, i, 1509.

- Parsons, L. B.**, and **W. S. Sturges**, error due to ammonia and ammonium salts in Van Slyke's procedure for amino-nitrogen determination as applied in studies of bacterial metabolism, i, 1509.
- Partington, J. R.**, and **M. F. Carroll**, specific heats of carbon monoxide and hydrocyanic acid vapour, ii, 373.
- Partington, J. R.**, and **A. B. Howe**, ratio of specific heats of hydrogen, ii, 1041.
- Partington, J. R.**, and **W. G. Shilling**, water-gas equilibrium, ii, 395.
- Partington, J. R.**, and **S. K. Tweedy**, molecular weight of cholesterol, ii, 273.
- Partington, J. R.** See also **J. W. Beeson**, **J. J. Doolan**, **K. Stratton**, and **I. Vogel**.
- Pascal, P.**, complex iron derivatives of triazinetricarboxylic acid, i, 984.
supposed formation of carbon from piperonyl derivatives, i, 1278.
magnetochemistry of polymerides, ii, 371.
definition and preparation of hexametaphosphates, ii, 420.
synthesis of nitric acid by Ostwald's process, ii, 566.
magneto-chemical researches on the formation of open chains and nuclear groupings in organic compounds, ii, 634.
density of bromoform; application to the testing of aluminium, ii, 646.
influence of chemical constitution on the thermal properties of binary mixtures; triazine and benzene derivatives, ii, 953.
magnetochemistry of closed chains, ii, 1123.
- Pascal, P.**, and **E. Decarrière**, catalytic oxidation of ammonia, ii, 565.
influence of gaseous impurities on the yield in the catalytic oxidation of ammonia, ii, 565.
- Pascual Vila, J.**, preparation of *iso*-benzylidenedecybenzoin, i, 144.
analyses of gases in cystic intestinal pneumatosis, i, 329.
- Pascual Vila, J.**, and **J. Cerezo**, benzylbenzoin [benzoylphenylbenzylcarbinol], i, 557.
- Passek, F.**, preparation of di-iodo-hydroxyquinolines, i, 1170.
- Passerini, M.**, action of potassium cyanide on pernitroso derivatives, i, 1290.
carbylamines. XII. Reactions between phenylcarbylamine and α -naphthol, i, 1298.
- Pastak, I. A.**, constitution of aromatic substances and their chemical and physical properties. I, i, 531.
constitution of aromatic substances and their physical and chemical properties. II. Melting points of benzene derivatives, ii, 759.
- Patart, G.**, synthesis of methyl alcohol by reduction of carbon monoxide, i, 110.
- Pate, W. W.**, influence of the amount and nature of the replaceable base on the heat of wetting of soils and soil colloids, i, 1523.
- Patel, C. S.** See **K. G. Naik**.
- Patel, M. S.** See **W. R. Orndorff**.
- Paterson, M. J.**, and **S. G. P. Plant**, derivatives of *8-o*-aminobenzoylvaleric acid, i, 1147.
- Paterson, T. R.** See **H. G. Rule**.
- Paton, F. J.**, colorimetric determination of sugar in blood, i, 180.
- Paton, F. J.** See also **A. R. Ling**, and **D. R. Nanji**.
- Patrick, W. A.**, capillary adsorption, ii, 509.
- Patrick, W. A.**, and **N. F. Eberman**, adsorption from the standpoint of capillarity, ii, 284.
- Patrick, W. A.**, and **C. E. Greider**, heats of adsorption of sulphur dioxide and of water vapour by silica gel at 0°, ii, 870.
- Patrick, W. A.**, **W. L. Hyden**, and **E. F. Milan**, nature of soap in alcohol, ii, 859.
- Patrick, W. A.**, and **D. C. Jones**, adsorption from solution from the standpoint of capillarity. I, ii, 193.
- Patrick, W. A.**, and **J. S. Long**, adsorption of butane by silica gel, ii, 382.
- Patrick, W. A.**, and **L. H. Opdycke**, adsorption of vapours by silica gel by a dynamic method, ii, 656.
- Patrick, W. A.**, **W. C. Preston**, and **A. E. Owens**, adsorption phenomena in the vicinity of the critical temperature, ii, 508.
- Patrick, W. A.** See also **R. L. Hasche**, **A. S. Hunter**, and **M. Latshaw**.
- Patschke, E.** See **A. Sonn**.
- Patta, A.**, chemical tests of arsenobenzenes, especially the "DM index," i, 1195.
- Patterson, A. M.**, proposed international rules for numbering organic ring systems, i, 824.
- Patterson, J.**, urea determinations on small quantities of blood, i, 1200.
- Patterson, R. A.**, crystal structure of chromium and titanium, ii, 845.

- Patterson, R. A.**, crystal structure of copper-manganese alloys, ii, 1130.
- Patterson, T. S.**, modifications in laboratory apparatus, ii, 151.
- Patterson, T. S.**, and **C. Buchanan**, optical superposition. VI. Methyl- α -hexylcarbinyl dimethoxysuccinates, i, 115.
- Patterson, T. S.**, and **J. D. Fulton**, rotation-dispersion of optically active compounds; dimethoxysuccinates and nicotine, ii, 1120.
- Patterson, T. S.**, **A. McMillan**, and **R. Somerville**, extraction of the isomeric xylenes from crude "xylol," i, 124.
- Patterson, W. H.**, and **J. Duckett**, method of determining the presence or absence of complex salts or ions in dilute aqueous solution, ii, 389.
- Patterson, W. H.** See also **J. Duckett**, and **E. E. Turner**.
- Paul, B.** See **G. Fritz**.
- Paul, T.**, measurement of the second dissociation constants of dibasic acids, with special reference to tartaric acid, ii, 116.
- Pauli, W.**, electrolyte-free, water-soluble proteins. I. Electrodialysis, ii, 319.
- Pauli, W.**, and **M. Schön**, electrolyte-free, water-soluble proteins. III. Salt-protein compounds (ZnCl_2). I, ii, 198.
- Pauli, W.**, and **E. Valkó**, constitution of silicic acid sols. I, ii, 521.
- Pauli, W.** See also **M. Adolf**, **E. Fried**, **N. Kühnl**, and **F. Modern**.
- Pauli, W., jun.**, influence of velocity-dependence of electron mass on the Zeeman effect, ii, 251.
relation between the distribution of electrons in the atom into sub-groups and the complex structure of spectra, ii, 339.
- Pauling, L.**, crystal structures of ammonium fluoferrate, fluoaluminate, and oxyfluomolybdate, ii, 185.
- Pauling, L.**, and **A. Björkeson**, crystal for wave-length measurements of soft X-rays, ii, 895.
- Pauling, L.**, and **P. H. Emmett**, crystal structure of barite, ii, 485.
- Pauling, L.**, and **S. B. Hendricks**, crystal structures of hematite and corundum, ii, 368.
- Pauling, L.**, and **R. C. Tolman**, entropy of supercooled liquids at the absolute zero, ii, 952.
- Pauling, L.** See also **R. M. Bozorth**, and **P. Debye**.
- Paulson, P. M.** See **A. Mann**.
- Pauly, H.**, dissociation constants of glyoxaline-4:5-dicarboxylic acid, i, 1327.
- Pauthenier, M.**, rotating arc between carbon electrodes, ii, 725.
- Pauthenier, M.** See also **G. Bruhat**.
- Pavelka, F.** See **F. Feigl**.
- Pavlov, F.** See **T. Molodyi**.
- Pavlov, P. N.**, adsorption. IX. Adsorption by soil, ii, 287.
adsorption. VIII. Adsorptive capacity of air-dried manganese dioxide hydrate, ii, 507.
adsorption. XI. Life period of organisms and its dependence on the concentration and volume of the toxic medium and on the concentration of the organisms, ii, 958.
- Peacock, B. L. de G.** See **J. C. Peacock**.
- Peacock, D. H.**, velocity of benzylation of certain amines. II, i, 13-9.
- Peacock, J. C.**, and **B. L. de G. Peacock**, tannin of *Rhus glabra*, i, 1124.
- Pearce, J. N.**, and **A. M. Alvarado**, adsorption of vapours by metallic oxides: its bearing on the catalysis of ester formation, ii, 381.
- Pearce, J. N.**, and **R. W. Gelbach**, free energy of dilution and the activity of the ions in aqueous solutions of barium chloride, ii, 867.
- Peard, G. H.** See **J. H. S. Johnston**.
- Pearson, A. R.**, and **J. S. G. Thomas**, gas circulating apparatus, ii, 1194.
- Pearson, L. K.** See **A. Lapworth**.
- Pease, R. N.**, and **R. B. Purdum**, hydrogenation of benzene in presence of metallic copper, i, 798.
- Pease, R. N.**, and **L. Stewart**, catalytic combination of ethylene and hydrogen in the presence of metallic copper. III. Carbon monoxide as a catalyst poison, ii, 691.
- Pease, R. N.**, and **C. C. Yung**, equilibrium in the alcohol-ether reaction at 130° and 275° , ii, 37.
- Pechhold, R.** See **R. Fürth**.
- Pechous, C. E.** See **E. I. McEnery**.
- Peczalski, T.**, and **G. Mokrzycki**, chemical compounds of salts in the electric arc, ii, 814.
- Peddle, W.**, colour-vision spectrometer, ii, 1118.
- Pedersen, K. O.** See **E. Billmann**.
- Peek, A. E. J.** See **J. Böeseken**.
- Pégurier, G.**, determination of sugar in urines containing santonin, i, 609.
Fehling's reagent, ii, 1208.
- Peignier, P.** See **G. Vavon**.
- Peiser, E.**, anomalies of salts of nucleic acids, i, 1477.

- Pekarskaja, G.** See *M. A. Rakuzin*.
- Pélabon, H.**, direct formation of mercuric oxychlorides, ii, 222.
direct formation of mercuric oxybromides, ii, 697.
action of hydrogen sulphide on mercuric salts, ii, 986.
- Pelling, A. J.**, system, chloride-sulphate-sodium-water, ii, 670.
- Pellizzari, G.**, investigations on guanidine, i, 1047.
- Pember, F. R.**, and *F. T. McLean*, economical use of nitrogen, phosphorus, and potassium by barley, oats, and wheat in solution cultures, i, 1121.
- Pember, F. R.** See also *R. L. Jones*.
- Pemberton, R.** See *F. A. Cajori*.
- Pénau, H.**, and *H. Simonnet*, secretin and insulin, i, 482.
- Penfold, A. R.**, essential oils of *Melaleuca erubescens* (Otto), and *M. hypericifolia* (Smith), i, 688.
essential oil of *Boronia saffrolifera* (Cheel), i, 688.
- Penfold, A. R.**, and *F. R. Morrison*, *Eucalyptus piperita* and its essential oils, with special reference to their piperitone content. I., i, 688.
- Penfold, A. R.**, and *R. Grant*, germicidal values of the pure constituents of Australian essential oils, essential oil isolates, and synthetics. II., i, 614.
- Penkava, J.** See *J. Stoklasa*.
- Pepin, F.** See *W. Jerome*.
- Pérard, A.**, refractive index of air in the visible spectrum between 0° and 100°, ii, 1137.
- Pereira, J. R.**, influence of the hydrogen-ion concentration on the oxygen consumption in sea-water fishes, i, 177.
muscular exercise; lactic acid and the supply and utilisation of oxygen. XII. Technique of determining the resting oxygen intake while breathing oxygen mixtures, i, 1341.
- Pereira, J. R.** See also *R. J. Lythgoe*.
- Perkin, A. G.**, and *G. Yoda*, reduction products of the hydroxyanthraquinones. VI., i, 1160.
- Perkin, A. G.** See also *O. Kubota*.
- Perkin, W. H., jun.**, and *H. S. Pink*, α -dialdehydopropane- $\beta\beta$ -dicarboxylic acid and α -dialdehydopropane- β -carboxylic acid, i, 359.
- Perkin, W. H., jun.**, and *S. G. P. Plant*, action of hydrogen chloride on cyclohexylideneazaine and on cyclopentylideneazaine, i, 842.
- Perkin, W. H., jun.**, *J. N. Rây*, and *R. Robinson*, synthesis of oxyberberine. I., i, 695.
- Perkin, W. H., jun.**, *R. Robinson*, and *F. W. Stoyale*, nitration of 2:3-dimethoxybenzaldehyde, i, 39.
- Perkin, W. H., jun.**, and *W. G. Sedgwick*, tetrahydroacridine, octahydroacridine and their derivatives, i, 63.
- Perkin, W. H., jun.**, and *R. B. Tapley*, oxidation of acetomesitylene with permanganate, i, 42.
- Perkin, W. H., jun.** See also *British Dyestuffs Corporation, Ltd.*, *J. S. Buck*, *G. A. Edwards*, *R. D. Haworth*, *W. H. Linnell*, and *F. Lions*.
- Perkins, A. E.**, and *C. F. Monroe*, effect of high and low protein content on the digestibility and metabolism of dairy rations, i, 1354.
- Perkins, A. E.** See also *C. F. Monroe*.
- Perkins, M. E.** See *W. Jones*.
- Perkins, P. P.** See *H. Adkins*.
- Pernot, (Mlle.)**. See *M. Tournoux*.
- Perot, A.**, and *M. Collinet*, effect of density on the wave-length of the absorption bands of iodine, ii, 737.
- Perpérot, H.**, action of gaseous ammonia on phosphorus chlorides, ii, 1186.
- Perpérot, H.** See also *H. Copaux*.
- Perquin, J. N. J.** See *H. I. Waterman*.
- Perrakis, N.**, influence of proximity to the critical solution temperature on the volume, ii, 29.
Trouton's ratio at the absolute zero, ii, 492.
physical properties of binary liquid mixtures in the region of the critical miscibility point, ii, 764.
- Perrakis, N.** See also *L. Gay*.
- Perraud, S.** See *F. Couturier*.
- Perreau, (Mlle.) G.** See *A. Boutaric*.
- Perrette, (Mlle.) B.**, isotopy of lead, ii, 646.
- Perrier, C.**, determination of the principal refractive indices of doubly refracting substances by means of Federov's plate, ii, 1023.
- Perrin, F.**, theory of polarised fluorescence; influence of viscosity, ii, 353.
- Perrin, F.** See also *P. Auger*.
- Perrin, J.**, and *(Mlle.) Choucrout*, fluorescence and the general laws of reaction velocity, ii, 55.
- Persiel, H.** See *R. Willstätter*.
- Perucca, E.**, electrification by friction between solids and gases, ii, 1028.
- Peschard, M.**, magnetisation of ferromagnetic [alloys] (thermomagnetic properties), ii, 651.
magnetisation of ferro-nickel; saturation and atomic moments, ii, 751.

- Peskett, G. L.**, growth of yeast. I. Influence of volume of culture medium employed, i, 1011. growth of yeast. II. Allelocatalysis, i, 1012.
- Pessôa, S. B.** See *W. G. Smillie*.
- Peter, A. M.** See *G. D. Buckner*.
- Peters, F. N., jun., E. Griffith, D. R. Briggs, and H. E. French**, action of magnesium phenyl bromide on organic acids, i, 542.
- Peters, J. P., A. J. Eisenman, and H. A. Bulger**, plasma proteins in relation to blood hydration. I., i, 1491.
- Peters, R. A.**, modified Claisen vacuum distillation apparatus, ii, 589.
- Peters, R. A.** See *H. W. Kinnorsley*.
- Petersen, M.** See *J. B. Green*.
- Petersen, W. F., and T. P. Hughes**, inorganic alterations of the lymph in canine anaphylactic shock, i, 724.
- Peterson, H. A.**, inorganic bone-forming elements of the blood-serum, i, 715.
- Peterson, W. H., E. B. Fred, and B. P. Domogalla**, occurrence of amino-acids and other organic nitrogen compounds in lake water, i, 765.
- Peterson, W. H., E. B. Fred, and H. R. Stiles**, fermentation characteristics of mannitol-forming bacteria, i, 1510.
- Peterson, W. H.** See also *B. P. Domogalla, E. B. Fred, and H. R. Stiles*.
- Petin, N.** See *E. Spitalsky*.
- Petit, M.**, dissociation of auric chloride, ii, 668. preparation of auric chloride, ii, 1089.
- Petit, P.**, liquefaction of starch paste, ii, 967.
- Petit, P., and Richard**, influence of method of dissolving amylase on saccharification of starch, i, 1504.
- Petitcolas, P.** See *C. Courtot*.
- Petow, H.** See *P. Rona*.
- Petrenko-Kritschenko, P.**, law of periodicity and the theory of cyclic unsaturated compounds, ii, 1122.
- Petrenko-Kritschenko, P., W. Bogatsky, and N. Lubman**, velocity of ester formation, ii, 556.
- Petrenko-Kritschenko, P., and V. Butmi de Katzman**, modification of Hofmann's decomposition reaction of heterocyclic compounds, i, 1094.
- Petrenko-Kritschenko, P., D. Talmud, B. Talmud, W. Butmi de Katzman, and A. Gandelman**, chemical activity, ii, 802.
- Petreacu, E.** See *G. G. Longinescu*.
- Petrikaln, A.**, chemiluminescence and heteropolar combination, ii, 630.
- Petronio, R.** See *M. Giua*.
- Petrou, W.**, a salivary calculus, i, 725.
- Petrou, W.** See also *F. Haurowitz*.
- Petrovanu, G.**, effect of hydrogen peroxide on certain groups of bacteria; microbial catalases; autolytic phenomena, i, 1362.
- Petry, R. L.**, critical potentials in secondary electron emission from iron, nickel, and molybdenum, ii, 1017.
- Pettersson, H., and G. Kirsch**, disintegration of atoms, ii, 623.
- Petzchner, E.** See *F. Hein*.
- Peukert, E.** See *H. Biltz*.
- Pewsnar, G.** See *O. Steppuhn*.
- Peytral, (Mlle.) E.**, sudden pyrogenic decomposition of methyl formate at a high temperature, i, 777.
- Peytral, (Mlle.) E.** See also *J. A. Muller*.
- Pfaff, See A. Densch**.
- Pfaff, F.** See *A. Skrabal*.
- Pfaltz, M. H.** See *P. A. Levene*.
- Pfau, A. S.**, detection of benzyl alcohol as benzyl oxalate, ii, 905.
- Pfau, E.**, ligulin, the colouring matter of privet berries, i, 572.
- Pfau, E.** See also *P. W. Danckwortt*.
- Pfausch, H.**, ternary system, molybdenum-nickel-silicon, ii, 298. system, molybdenum-nickel-tin, ii, 536. system, aluminium-molybdenum-nickel, ii, 536.
- Pfeffermann, L.** See *J. Eggert*.
- Pfeiffer, H., and F. Standenath**, peptidase balance of man and animals. I., i, 1361.
- Pfeiffer, M.** See *L. Ruzicka*.
- Pfeiffer, P.**, acid character of ketoximes, i, 677. compound of veronal and pyramidone, i, 1318.
- Pfeiffer, P. [with O. Angern, P. Backes, W. Fitz, E. Prahl, H. Rheinboldt, and W. Stoll]**, halochromism of aromatic amino-ketones, i, 408.
- Pfeiffer, P. [with F. Goebel, and O. Angern]**, molecular compounds of aromatic amino-ketones, i, 262. quinoxalones, i, 271.
- Pfeiffer, P., and O. Angern**, molecular compounds of the amino-acids and diketopiperazines. I., i, 794.
- Pfeiffer, P., G. Armbruster, P. Backes, and H. Oberlin**, acid character of ketoximes, i, 270.
- Pfeiffer, P., E. Kalckbrenner, and H. Behr**, border-line between isomerism and polymorphism. IV., i, 547.

- Pfeiffer, P., H. Oberlin, and E. Konermann**, brazilin and hæmatoxylin question. IV. Methoxychromonols and the degradation product of brazilin obtained by Schall and Dralle, i, 1303.
- Pfeiffer, P., E. Prahl, W. Fitz, and W. Stoll**, attempts to prepare meta condensed ring systems in the aromatic series, i, 680.
- Pfeiffer, P., H. Rheinboldt, and J. Wolf**, halochromic compounds of imines, i, 411.
- Pfeil, L. B.** See *C. A. Edwards*.
- Pfister, A.** See *F. Ephraim*.
- Pfuhl, W.** See *K. von Auwers*.
- Pfund, A. H.**, emission of nitrogen and hydrogen in the infra-red, ii, 11.
halogen isotopes and infra-red reflexion spectra, ii, 255.
- Pfyl, B., and W. Samter**, organic phosphorus compounds in milk-serum, i, 1114.
- Phelps, E. P.** See *C. S. Hudson*.
- Phelps, I. K.** See *O. S. Rask*.
- Philip, J. C., and C. H. D. Clark**, molecular condition of phenol in benzene solution, ii, 770.
- Philippi, E., and R. Seka** [with *W. Bauer*], dinaphthanthracene series. VIII. Substituted derivatives of pyromellitic acid, i, 555.
- Philippi, E., and R. Seka** [with *K. Funke*], dinaphthanthracene series. VII. Condensation of pyromellitic anhydride with decalin and tetralin; sulphonation of dinaphthanthradiquinone, i, 556.
- Philippi, E., and R. Seka** [with *E. Hager, and M. Landau*], certain aliphatic carboxylic acids, i, 511.
- Philippi, E.** See also *K. Stosius*.
- Philippson, O.** See *J. Tröger*.
- Phillips, H.** See *J. Kenyon*.
- Phillips, M.**, methylisopropylantraquinone, i, 45.
preparation of 2-aminoanthraquinone from phthalic anhydride and chlorobenzene, i, 1076.
- Phillips, T. G.** See *R. C. Burrell*.
- Phragmén, G.** See *A. Westgren*.
- Piatti, L.** See *G. Weissenberger*.
- Piaux, L.**, spontaneous oxidation of 1-methyluric acid and 1:3-dimethyluric acid in alkaline solution, i, 165.
action of catalysts on oxidation of uric acid; copper and cuprous urate, i, 592.
action of free oxygen on uric acid dissolved in aqueous potassium hydroxide; action of catalysts, i, 592.
- Piazza, G.**, variations of the phosphoric acid during glycolysis in blood, i, 1486.
- Picard, F.**, physiological function of tannins; their importance in the ripening of vine-shoots, i, 346.
- Picard, J.** See *F. Bourlion*.
- Picard, P.** See *M. Bridel*.
- Piccard, J.**, co-ordination positions of the oxygen atom, ii, 15.
- Piccardi, G.**, thermal method for the study of gaseous systems, ii, 540.
- Piccardi, G.** See also *L. Rolla*.
- Pichard, G.** See *G. Rivière*.
- Pick, L.**, determination of reducing sugars, ii, 906.
iodometric determination of reducing sugars, ii, 906.
- Pickens, R. M.** See *H. Gilman*.
- Pickering, E. C.** See *F. J. Wilson*.
- Pickering, J. W., and R. J. Gladstone**, development of blood plasma. I. Genesis of coagulable materials in embryo chicks, i, 1343.
- Pickworth, F. A.**, determination of iodine in thyroid gland, i, 1489.
- Picon, effect of vacuum and of heat on the neutral and basic bismuth nitrates; determination of water of constitution and of nitric acid in these salts, ii, 1188.**
- Picon, M.** See *P. Lebeau*.
- Pictet, A., W. Scherrer, and L. Helfer**, presence of argon in gases produced by alcoholic fermentation of dextrose, i, 865.
presence of argon in living cells, i, 1202.
- Pied, H.**, precipitation of tantalum and niobium by "cupferron" and their separation from iron, ii, 442.
- Pien, J.** See *C. Brioux*.
- Pienkowski, S., and A. Jablonski**, measurement of the coefficients of the absorption of light by fluorescent substances, ii, 1031.
- Pierce, J. S., and R. Adams**, platinum oxide as a catalyst in the reduction of organic compounds. VIII. Reduction of furylalkylcarbinols, i, 824.
- Pieroni, A.** [with *B. Haupt*], pyridine derivatives, i, 1316.
- Pieroni, A., and D. Nocentini**, iodo derivatives of pyrrole and their behaviour towards nitric acid, i, 1096.
- Pierre, W. H.**, hydrogen-ion concentration of soils as affected by carbon dioxide and by the soil: water ratio, and the nature of soil acidity, i, 1526.
- Pike, S. R., and G. Nonhebel**, theory of interionic attraction in strong electrolytes, ii, 1061.

- Pilley, J. E. G.**, attempted electrolytic separation of the isotopes of chlorine and magnesium, ii, 462.
- Pilley, J. E. G.** See also *T. R. Merton*.
- Pilling, N. B.**, and *R. E. Bedworth*, oxidation of copper-nickel alloys at high temperature, ii, 689.
- Pina de Rubies, S.**, new lines between 3100 and 2200 Å. in the arc spectrum of lanthanum at normal pressure, ii, 612.
- arc spectrum of scandium, ii, 829.
- Pinck, L. A.**, determination of cyanamide, ii, 607.
- Pinck, L. A.**, and *M. A. Kelly*, solubility of carbamide in water, ii, 955.
- Pinckney, A. J.** See *M. J. Blish*.
- Pincussen, L.**, enzymes and light. VI. Influence of iodides on irradiated enzymes, i, 468.
- Pincussen, L.**, and *N. Klissiunis*, enzymes and light. VII. Influence of iodides on irradiated enzymes. II., i, 469.
- Piness, G., H. Miller**, and *G. A. Alles*, extraction of proteins, i, 331.
- Pink, H. S.** See *R. D. Haworth*, and *W. H. Perkin, jun.*
- Pinta, R.** See *M. Oswald*.
- Pinter, E.** See *Robert Müller*.
- Piper, E.** See *J. Meisenheimer*.
- Pirani, M.** See *H. Alterthum*.
- Pirk, L.** See *E. Fromm*.
- Pirsch, H.** See *A. Kuhn*.
- Pisarshevski, L.**, the electron in the chemistry of solutions and in electrochemistry. V. Ionic reactions, the ionisation of metals, and the osmotic theory of the galvanic current. VI. Electrical nature of catalytic phenomena, ii, 210.
- Pittarelli, E.**, an unknown or little-known volatile urinary substance, i, 98.
- Pittenger, W. H.** See *L. H. Cretcher*.
- Pitts, C. R.** See *R. D. Kleeman*.
- Piutti, A.**, preparation of asparagine by the diffusion method, i, 753.
- Piutti, A.**, and *E. Boggio-Lera*, diffusibility of helium through crystalline septa, ii, 500.
- rare gases of volcanic exhalations, ii, 1092.
- Plăcinteanu, J. J.**, dependence of the heat of vaporisation and the surface tension of a liquid on the molecular forces, ii, 39.
- Plancher, G., U. Colacicchi**, and *O. Barbieri*, 2:3:3-trimethyl- β -naphthindolenine and the formula of the indolenines, i, 579.
- Plancher, G.**, and *E. Ghigi*, some benzeneazophenylpyrroles, i, 597.
- Plancher, G.**, and *G. Rossi*, mercuri-organic compounds of 1-phenylpyrrole, i, 601.
- Planck, M.**, quantising of monatomic gases, ii, 495.
- statistical definition of entropy, ii, 951.
- Planelles, J.** See *S. E. de Jongh*, and *F. Lipmann*.
- Planiol, R.** See *H. Abraham*.
- Planiszig, F.** See *Robert Müller*.
- Plant, S. G. P.**, and *J. E. Facer*, synthesis and reactions of 1-anilino-cyclopentane-1-carboxylic acid, i, 1271.
- Plant, S. G. P.** See also *M. J. Paterson*, *W. H. Perkin, jun.*, and *N. V. Sidgwick*.
- Plantefol, L.**, modification of Laulanié's apparatus for the determination of carbon dioxide and oxygen in air, ii, 902.
- Plantefol, L.** See also *A. Mayer*.
- Plass, E. D.**, and *C. W. Matthew*, placental transmission. III. Amino-acids, non-protein nitrogen, urea, and uric acid in foetal and maternal whole blood, plasma, and corpuscles, i, 1489.
- Plato, W.** See *A. Rosenheim*.
- Platon, J. E.**, oxidation of vitamin-A during the preparation of butter from cream, i, 484.
- Platt, B. S.**, and *E. R. Dawson*, factors influencing the action of pancreatic lipase, i, 1506.
- Plat, J. H.** See *E. Knecht*.
- Plaut, H.** See *M. Bodenstein*.
- Plechner, W.** See *L. J. Curtman*.
- Pleuger, G.**, solubility in mixed liquids, ii, 283.
- Ploetz, G.** See *K. Arndt*.
- Plotnikov, J.**, photochlorination of aliphatic compounds in carbon tetrachloride, ii, 220.
- absorption spectra of several ketones, ii, 837.
- periodic phenomena in photochemistry, ii, 883.
- combination of bromine with unsaturated hydrocarbons under the influence of light, ii, 985.
- Plotnikov, W.**, electrical conductivity of potassium iodide in bromine-iodine solutions, ii, 791.
- Plüss, W.**, catalytic dehydration of phenol-alcohol systems. II. Naphthol-alcohol systems, i, 1410.
- Plüss, W.** See also *E. Briner*.
- Plyler, E. K.**, infra-red absorption of ice, ii, 87.

- Pochettino, A.**, optical properties of crystals of certain cyanoplatinates. I., ii, 21.
- Podhradsky, J.** See *J. Krizenecky*.
- Podjaski, G. von.** See *H. von Wartenberg*.
- Podroužek, W.**, dropping mercury cathode. X. Some organic bases, ii, 677.
- Podroužek, W.** See also *H. Křepelka*.
- Pohl, R.** See *W. Steinkopf*.
- Pohl, R.** See *B. Gudden*.
- Pohland, E.** See *A. Stock*.
- Pohlmeyer, W.**, β -ray spectrum of thorium-B+C, ii, 347.
- Pohorecka-Lelesz, B.**, micro determination of carbamide and ammonium salts by titration with hypobromite, ii, 76.
- Poindexter, F. E.** See *A. L. Hughes*.
- Poirot, G.**, detection of copper in distilled water, ii, 242.
- Pol, C. van den.** See *W. P. Joriszen*.
- Póányi, M.**, connexion between osmotic pressure, swelling pressure, and adsorption, ii, 290.
- crystal deformation and hardening, ii, 370.
- Póányi, M.**, and *E. Schmid*, strengthening and weakening of tin crystals, ii, 752.
- Póányi, M.**, and *E. Wigner*, formation and decomposition of molecules, ii, 1077.
- Póányi, M.** See also *W. Ewald, M. Fischenich, and G. Masing*.
- Policard, A.**, and *A. Leulier*, characterisation of hæmatoporphyrin and urobilin in urine by means of Wood's light, i, 1351.
- Politzer, G.**, toxic action of neutral-red, i, 197.
- Pollak, F.**, pernitric acid, ii, 407.
- Pollak, J.**, apparatus for quantitative microanalysis, ii, 431.
- Pollak, J.** See also *R. Strebing*.
- Pollard, A. F. C.**, nephelometry; suggested sensitive test for the stability of explosives, ii, 803.
- Pollecoff, F.**, glycuronic acid as a probable constituent of urochrome, i, 186.
- Poller, K.** See *S. Skraup*.
- Pollitzer, F.**, and *E. Strebel*, influence of indifferent gases on the saturated vapour concentrations of liquids, ii, 104.
- Polonovski, M.**, and *F. Morvillez*, formation of starch from arabinose by plants, i, 1222.
- Polonovski, M.** See also *C. Dubois*.
- Polonovski, Max**, and *G. Galbrun*, distribution of carbon in cerebrospinal fluid, i, 854.
- Polonovski, Max**, and *Michel Polonovski*, alkaloids of the calabar bean. XIII. Tautomeric forms of eserine: nitroso and benzoyl derivatives, i, 151.
- oxyeserine and its derivatives, i, 293, 696.
- amine-oxides of alkaloids of the tropan group, i, 828.
- alkaloids of the calabar bean. XIV. Constitution of eserine and oxyeserine derivatives, i, 959.
- Polonovski, Michel.** See *Max Polonovski*.
- Polushkin, E. P.**, determination of the structural composition of alloys by a metallographical planimeter, ii, 189.
- Pomeranz, H.**, constitution of the sulphonation products of the higher unsaturated fatty acids, i, 1380.
- Pomeranzeva, A.** See *N. Isgarischev*.
- Ponce, H. P.**, "lecitiburin," a lecithin from the eggs of the shark, i, 97.
- Ponder, E.**, and *W. W. Taylor*, changes in conductivity of red cell suspensions during hæmolysis, i, 1202.
- Pongratz, A.** See *A. Zinke*.
- Ponzio, G.**, hydroxyglyoximes, i, 8.
- dioximes. XXI. and XXIV., i, 139, 1075.
- Ponzio, G.**, and *V. Bernardi*, peroxides of dioximes of diacylglyoximes, i, 79.
- Ponzio, G.**, and *G. Ruggeri*, dioximes. XXVI., i, 1041.
- Poole, H. J.**, elasticity of gelatin jellies and its bearing on their physical structure and chemical equilibria, ii, 519.
- Poore, H. D.**, citrus fruit pectin, i, 619.
- Pope, (Sir) W. J.**, and *T. M. Haines*, colloidal kaolin. I. Properties, ii, 1152.
- Pope, (Sir) W. J.** See also *F. B. Kipping, and F. G. Mann*.
- Popenoe, C. H.** See *E. H. Siegler*.
- Popesco, J. G.**, capillary and photoelectric property of mercury, ii, 952.
- Popescu-Inotesti, C.** See *I. I. Nitzescu*.
- Popov, M.**, and *K. Seisov*, increased imbibition by colloids through chemical stimulants, i, 606.
- Popov, M.** See also *W. Swientoslawski*.
- Popov, S.**, and *J. L. Whitman*, standardisation of solutions used in iodometry. II., ii, 1093.
- Popovici, H.**, formation of essential oils, i, 1123.

- Popovicki, A.**, photochemical decomposition of chromium salts in the presence of organic matter, ii, 220.
- Popp, K.**, periodic stratification of magnesium hydroxide, ii, 667.
- Popper, H.** See *N. Abelles*.
- Porai-Koschitz, A.**, reduction of nitroso-phenols with alkali sulphides, i, 1060.
- Porcher, C.**, complexes containing calcium salts of caseinogen and phosphoric acid, and their coagulation by rennin, i, 846.
action of carbon dioxide on calcium caseinogenate; colloidal calcium carbonate, i, 847.
- Porges, O.** See *D. Adlersberg*.
- Porlezza, C.**, and *U. Gatti*, action of calcium hydride on certain organic compounds. II. Methyl ethyl ketone, i, 788.
- Porritt, W. H.** See *G. T. Morgan*.
- Porter, C. R.** See *G. T. Morgan*.
- Porter, C. W.**, and *H. C. Ramasperger*, action of ultra-violet light on carbon dioxide and water, ii, 573.
- Porter, M. W.**, optical properties of mixed crystals, ii, 945.
- Posnjak, A.** See *L. A. Tschugaev*.
- Posnjak, E.** See *R. B. Sosman*.
- Posthumus, K.** See *F. A. H. Schreinemakers*.
- Postma, J.** See *H. R. Kruyt*.
- Postmontier, R. S.** See *M. Kahn*.
- Postowsky, J. J.** See *F. Kögl*.
- Poulenc Frères.** See *Les Etablissements Poulenc Frères*.
- Poulsen, E.**, and *G. Weidemann*, benzoylallyllecgonine and benzoylbenzylecgonine, i, 466.
- Povarnin, G.**, and *Kalje*, reduction of acetic acid and some of its derivatives, i, 1034.
- Povarnin, G.**, and *V. Markov*, vapours of the system, acetic acid-water, ii, 851.
physical equilibrium in the system, acetic acid-acetic anhydride, ii, 851.
- Powell, A. R.**, and *W. R. Schoeller*, separation of tantalum from niobium, and detection and determination of tantalum in niobium compounds, ii, 1096.
- Powell, D.**, development and distribution of chlorophyll in roots of flowering plants grown in the light, i, 1221.
- Powell, E. B.**, soil colloids as simple suspensions, i, 1032.
- Powell, S. G.**, condensation of *n*-butaldehyde with methyl ethyl ketone, i, 7.
preparation of β -chloropropionic acid, i, 228.
- Powell, S. G.**, and *N. G. Johnson*, β -toloxypropionic acids and the corresponding chromanones, i, 278.
- Powell, W. J.**, and *H. Whittaker*, chemistry of lignin. II. Comparison of lignins derived from various woods, i, 372.
- Power, A. D.**, resonance radiation from cadmium vapour, ii, 1113.
- Power, F. B.**, and *V. K. Chesnut*, alkaline reaction of the cotton plant, i, 758.
odorous constituents of the cotton plant; emanation of ammonia and trimethylamine from the living plant, i, 1026.
- Powers, D. H.** See *L. W. Jones*.
- Poynton, F. Y.** See *G. E. Bell*.
- Praetorius, P.** See *A. Stock*.
- Prahl, E.** See *P. Pfeiffer*.
- Prandtl, W.**, separation of the rare-earths by basic precipitation. VIII. Preparation of pure yttrium oxide, ii, 439.
- Prange, G.** See *C. Räth*.
- Prasad, M.**, *D. L. Shrivastava*, and *R. S. Gupta*, mechanism of the adsorption of sugar by colloidal solutions and precipitates, ii, 957.
- Prasad, M.** See also *S. S. Bhatnagar*, *M. B. Rane*, and *D. L. Shrivastava*.
- Prät, S.**, leaf pigments of *Potamogeton*, i, 487.
- Pratolongo, U.**, alkaline chlorosis of the vine, i, 623.
pedological chemistry. I. Alkalinity of the soil in relation to its lithological constitution, i, 874.
- Pratt, (Miss) C. A.**, staling of fungal cultures. II. Alkaline metabolic products and their effect on the growth of fungal spores, i, 106.
- Pratt, D. D.**, and *R. Robinson*, synthesis of pyrylium salts of anthocyanidin type. V. Synthesis of cyanidin chloride and of delphinidin chloride, i, 422.
synthesis of pyrylium salts of anthocyanidin type. VI. Polyhydroxy-flavylium salts related to chrysin, apigenin, lotoflavin, luteolin, galangin, fisetin, and morin, i, 825.
synthesis of pyrylium salts of anthocyanidin type. VII. Preparation of the anthocyanidins with the aid of 2:4:6-triacetoxybenzaldehyde, i, 826.
- Prausnitz, P. H.**, glass filter apparatus, ii, 996.
- Prawdziej-Neminski, W. W.**, hormonal significance of ammonia; antagonism and synergism of ammonium and magnesium ions in the organism, i, 481.

- Predvoditelev, A.**, theory of diminution of fluorescence, ii, 738.
specific heat of the hydrogen molecule, ii, 1041.
- Predvoditelev, A.**, and *N. Netschajeva*, kinetics of photochemical processes in dyes, ii, 575.
- Predvoditelev, A.** See also *G. Landsberg*.
- Pregl, F.**, preparation of standard solutions, ii, 998.
- Prentiss, A. M.** See *E. J. Cohn*, and *G. P. Grabfield*.
- Preobraschenski, N.** See *A. Stepanov*.
- Presho, N. E.** See *P. J. Hanzlik*.
- Preston, G. D.** See *E. A. Owen*.
- Preston, W. C.** See *W. A. Patrick*.
- Prett, K.** See *Robert Müller*.
- Prévost, C.**, α -phenyl- $\Delta^{\alpha\gamma}$ -pentadiene, i, 878.
- Prévost, C.** See also *R. Lespieau*.
- Prianishnikov, D.**, asparagine and urea, i, 213.
physiological character of ammonium nitrate [towards plants], i, 757.
- Pribyl, E.**, determination of small quantities of arsenic in animal organs, i, 1500.
- Price, T. S.**, behaviour of silver iodide in the photo-voltaic cell, ii, 680.
- Prichard, C. R.**, and *C. N. Hinshelwood*, interaction of hydrogen and carbon dioxide on the surface of platinum, ii, 564.
- Prichard, C. R.** See also *C. N. Hinshelwood*.
- Prideaux, E. B. R.**, and *W. E. Crooks*, diffusion potentials and ionic mobilities of benzoates and salicylates and their modification by a membrane of parchment paper, ii, 42.
- Prideaux, E. B. R.**, and *G. Green*, molecular weight of selenium dioxide in ethyl alcohol, ii, 96.
- Prideaux, E. B. R.**, and *G. R. Nunn*, colorimetric dissociation constants of the mono- and di-nitroquinols, i, 24.
- Prideaux, E. B. R.** See also *J. S. Willcox*.
- Priss, O.** See *A. Stock*.
- Prine, L. W.** See *F. G. Keenen*.
- Pringle, H.**, identity of vitamin-A; comparative effects of human and cow's milk, i, 1018.
- Pringsheim, H.**, relationship of the blood-sugar to glycogen, i, 605.
lichen starch, i, 1029.
- Pringsheim, H.**, and *J. Bondi*, components of acetone oil, i, 1072.
- Pringsheim, H.**, and *A. Genin*, hemi-celluloses. VI. Fermentative fission of salep manna, i, 214.
- Pringsheim, H., W. Knoll, and E. Kaston**, constitution of lichenin and cellulose, i, 1385.
- Pringsheim, H.**, and *J. Leibowitz*, starch. XIII. α - and β -Amylases, i, 1043.
- Pringsheim, H., J. Leibowitz, and S. H. Silmann**, starch. XIV. Nitric esters of the polyamyloses, i, 1244.
- Pringsheim, P.**, and *A. L. Reimann*, fluorescence of benzene vapour by monochromatic excitation, ii, 181.
- Prins, H. J.**, mechanism of substitution reactions in the aromatic nucleus, i, 18, 379.
polar nature of the benzene nucleus, in relation to the theory of induced alternate polarity, i, 894.
mechanism of reduction. IV., ii, 1169.
- Priston, H. E. M.** See *J. Kenyon*.
- Probert, M. E.** See *P. H. Clifford*, and *R. G. Fargher*.
- Pročke, O.** See *J. Švéda*.
- Proescher, F.**, and *A. P. Krueger*, preparation of polychrome methylene-blue and thiazine-red, i, 597.
- Proskouriakoff, A.**, and *G. W. Raiziss*, mercury derivatives of azo dyes, i, 1107.
- Prud'homme, M.**, the three-temperature rule, ii, 99.
molecular heats of vaporisation, ii, 188.
- Prüsse, A.**, synthesis of methylated uric acids by Behrend and Roosen's method, i, 441.
- Prunier, P.** See *F. Kehrmann*.
- Pryde, J. E., L. Hirst, and R. W. Humphreys**, constitutional studies in the monocarboxylic acids derived from sugars. III. Isomeric tetramethyl galactonolactones and trimethyl arabinolactones, i, 365.
- Przedziecka-Jedrzejovska, A.** See *K. Jabczyński*.
- Pucher, G. W.** See *G. E. Youngburg*.
- Pütz, A.** See *H. Haehn*.
- Puiggari, H.**, electric transport in a ferric oxide hydrosol, ii, 129, 792.
- Pulevka, P.**, horn-dissolving action of alkali sulphides, i, 1341.
- Pummerer, R., H. Puttfarcken, and P. Schopföcher**, oxidation of phenols. VIII. Dehydrogenation of *p*-cresol, i, 1262.
- Pummerer, R.**, and *H. M. Ulrich*, composition of rubicene, $C_{26}H_{14}$, i, 1259.
- Purdum, R. B.** See *R. N. Pease*.
- Puri, A. N.**, effect of methyl and ethyl alcohols on the growth of barley plants, i, 217.
interaction between soil and dilute acids, i, 1372.

- Puri, *A. N.*, *E. M. Crowther*, and *B. A. Keen*, relation between the vapour pressure and water content of soils, i, 492.
- Puri, *A. N.*, and *B. A. Keen*, dispersion of soil in water under various conditions, i, 768.
- Puri, *V. S.* See *A. J. Allmand*.
- Purvis, *J. E.*, absorption spectra of various aldehydes and ketones and some of their derived compounds, ii, 627.
- Pusch, *E.* See *K. Fries*.
- Pusch, *J.* See *F. Arndt*.
- Pushin, *N. A.*, influence of pressure on the freezing point of *p*-nitrotoluene, *m*-dinitrobenzene, and guaiacol, ii, 277.
- Pushin, *N. A.*, and *J. V. Grebenshchikov*, equilibria at high temperatures by the pyrometric method, ii, 38.
- Putten, *M. F. van.* See *A. H. W. Aten*.
- Puttfarcken, *H.* See *R. Pummerer*.
- Puxeddu, *E.*, chlorination of tetramethylene polymerides, i, 1266.
- Pychlan, *H.* See *W. Hammer*.
- Pyman, *F. L.*, and *E. Stanley*, substitution in the benzene nucleus on nitration of 2-phenylglyoxaline and its carboxylic acids, i, 157.
- Pyman, *F. L.* See also *V. K. Bhagwat*, *R. Burtles*, *R. Forsyth*, and *W. G. Forsyth*.
- Pyriki, *C.* See *A. Heiduschka*.

Q.

- Quagliariello, *G.*, oxygen content of methæmoglobin, i, 89.
- Quam, *G. N.*, reactions in liquid hydrogen sulphide, ii, 582.
- Quam, *G. N.*, and *J. A. Wilkinson*, conductivities in liquid hydrogen sulphide solutions, ii, 542.
- Quartaroli, *A.*, autocatalysis, ii, 53.
- reciprocal excitation and inactivation of catalysts, ii, 805.
- positive and negative catalysts of the dehydration of cupric hydroxide, ii, 806.
- Quastel, *J. H.*, possible rôle of pyruvic acid in bacterial growth, i, 1216.
- Quastel, *J. H.*, and *M. Stephenson*, anaërobic growth of bacteria, i, 1217.
- Quastel, *J. H.*, *M. Stephenson*, and *M. D. Whetham*, reactions of resting bacteria in relation to anaërobic growth, i, 747.
- Quastel, *J. H.*, and *M. D. Whetham*, dehydrogenations produced by resting bacteria. I. and II., i, 1015, 1217.
- Quastel, *J. H.*, and *W. R. Wooldridge*, dehydrogenations produced by resting bacteria. III., i, 1217.
- Quayle, *O. R.*, and *E. E. Reid*, substituted *o*-benzoylbenzoic acids and the corresponding anthraquinones, i, 1289.
- Queroix, *M.* See *L. Meunier*.
- Quick, *A. J.*, effect of sodium carbonate concentration in the determination of sugar by Benedict's method, i, 1115.
- Quick, *W. G. E.* See *O. L. Brady*.
- Quigley, *J. P.*, and *A. D. Hirschfelder*, comparison of the action of some secondary and tertiary alcohols with special reference to local anæsthesia, i, 195.
- Quill, *L.* See *G. W. Sears*.
- Quintin, (*Mlle.*) *M.* See *R. Audubert*.

R.

- Raabe, *H.*, influence of certain factors in the development of the flagellate *Prowazekia (Bodo) edax*. I. Hydrogen-ion concentration, i, 868.
- Rabaté, *H.* See *R. Audubert*.
- Rabinovitsch, *A. J.*, coagulation of colloids by electrolytes. I. Arsenic trisulphide sols and barium chloride, ii, 778.
- Rabinovitsch, *E.* See *F. Paneth*.
- Rabinovitsch, *I. M.*, sodium, potassium, calcium, and magnesium in blood plasma in renal disease, i, 462.
- blood-sugar time curves following ingestion of dihydroxyacetone, i, 1352.
- Rabinovitsch, *I. M.* [with *A. B. Frith*], iodine. I. Avidity of the thyroid gland for various iodine compounds *in vitro*, i, 1488.
- Rabinovitsch, *M.* See *S. Jakubsohn*.
- Rabl, *C. H. R.* See *H. Bernhardt*.
- Rachevsky. See *Raschevsky*.
- Rackwitz, *E.* See *J. Traube*.
- Radcliffe, *L. G.*, and *E. H. Sharples*, determination of vanillin, piperonal, and coumarin, ii, 1210.
- Radet. See *Astruc*.
- Radmacher, *W.* See *W. Dilthey*.
- Radsimovska, *W.*, electrode for the determination of p_H in solid media, i, 338.
- Radulescu, *D.*, colour of spirans, i, 1159.
- Radulescu, *D.*, and *V. Georgescu*, general method for the synthesis of polyspirans, i, 819.

- Radulescu, D., and V. Georgescu,** constitution of phthalhydrazide, i, 1185.
 derivatives of indandione and diindone. I. Mechanism of the condensation of indandione with aldehydes, i, 1285.
 derivatives of indandione and diindone. II. Condensation products of aldehydes with diindone, i, 1286.
- Raack, M.** See *A. Schaarschmidt*.
- Räth, C.,** intramolecular condensation reactions of aminoacetals and aminoaldehydes. III. 2-Amino-3-methylpyridine and 1:2-dihydronaphthyrine, i, 437.
- Räth, C., and E. Lehmann,** *cis-trans*-isomerism in the stilbazole series, i, 432.
- Räth, C., and G. Prange,** reactions of 5-nitro-2-nitroaminopyridine, i, 978.
- Räth, C.** See also *A. Binz*.
- Rahfs, E.** See *W. Biltz*.
- Raiford, L. C., and J. C. Colbert,** 3-nitro-4-hydroxydiphenyl and some of its derivatives, i, 808.
- Raiford, L. C., and H. P. Lankelma,** effect of the acidity of acyl on the migration from nitrogen to oxygen in *o*-aminophenols, i, 809.
- Raikes, H. R.** See *H. B. Hartley*.
- Raiziss, G. W.** See *A. Proskouriakoff*.
- Rakshit, J. N.,** alteration of the volume contraction on solution, ii, 288.
 molecular contraction in solution, ii, 765.
- Rakuzin, M. A., and G. Pekarskaja,** fractionation of egg-yolk by common solvents, i, 607.
- Rakuzin, M. A., and A. Rosenfeld,** coagulation of albumins and β -albumins, i, 708.
- Raleigh, J. T., and S. M. Marie,** detection of ethyl phthalate in ethyl alcohol, ii, 605.
- Ramachandran, S.,** precipitation of bismuth sulphide from acid medium, ii, 1005.
 reaction between bismuth sulphide and hydrochloric acid, ii, 1208.
- Ramage, W. D., and K. C. Miller,** salt error of cresol-red, ii, 712.
- Raman, C. V., and S. K. Datta,** anomalous dispersion and multiplet lines in spectra, ii, 614.
- Raman, C. V., and L. A. Ramdas,** scattering of light by liquid boundaries, and its relation to surface tension. II. and III., ii, 952, 1046.
- Ramanathan, K. R.,** structure of benzene and cyclohexane and their optical anisotropy, i, 1255.
 structure of molecules in relation to their optical anisotropy. I., ii, 478.
 polarisation of resonance radiation and the duration of excited state, ii, 729.
- Ramann, E.,** chemico-physical influences of quicklime and calcium carbonate on mineral soils, i, 223.
 soil acidity and its determination, i, 875.
- Ramart, (Mme.) P.,** action of hydrobromic acid on some tertiary alcohols, i, 250.
- Ramart, (Mme.) P., and (Mlle.) Amagat,** molecular transpositions; preparation and dehydration of some $\beta\beta$ -diarylethyl and diarylalkylethyl alcohols, i, 658.
- Ramart, (Mme.) P.** See also *A. Haller*.
- Rambeck, O.,** aniline hydrogen salts of acids of the oxalic series, i, 385.
- Ramdas, L. A.,** spectrum of potassium excited during its spontaneous combination with chlorine, ii, 334.
- Ramdas, L. A.** See also *C. V. Raman*.
- Ramirez, M. A., A. V. St. George, and E. L. Moses,** chemical analysis of blood in asthma, hay fever, etc., i, 999.
- Ramon, G.,** diphtheria anatoxin and anatoxins in general, i, 339.
- Ramon, G.** See also *A. Berthelot*.
- Ramsbottom, J. E.** See *D. L. Chapman*.
- Ramsperger, H. C.** See *C. W. Porter*.
- Ranc, A.,** dissociation of sodium hydrogen carbonate, ii, 414.
- Randall, E. G.,** urinary calculus, i, 1491.
- Randall, H. M., and W. N. St. Peter,** infra-red line spectrum of zinc and cadmium, ii, 1101.
- Randall, M., and A. P. Vanselow,** activity coefficients of dilute aqueous solutions of hydrogen chloride, thalious chloride, and lead nitrate, ii, 33.
- Randoin, L., J. Alquier, (Mlle.) Asselin, and (Mlle.) Charles,** nitrogenous materials of corn offal; comparative study of their biological value as factors of existence, growth, and fertility, i, 210.
 balanced diets: relative proportions of mineral salts and carbohydrates, i, 1002.
- Randoin, L., and E. Lelesz,** variations in blood-sugar and liver glycogen of pigeons fed on normal diet and on diet deficient in vitamin-B, i, 751.

- Randoin, L.**, and **A. Michaux**, variations of proportion of urea in the blood of a guinea-pig under the influence of a diet lacking in anti-scorbutic factor, i, 751.
- Rane, M. B.**, and **M. Prasad**, effect of the addition of some alkaloids on the rate of dissolution of iron in dilute hydrochloric acid, ii, 410.
- Ranedo, J.**, and **A. Léon**, hydrogenation of diphenyl-*o*-carboxylic acid, i, 665.
- Ranfaldi, F.**, ethyl ester of α -phenyl-*p*-nitrocinnamic acid, i, 399.
- Rangier, M.**, form in which uric acid is excreted, i, 186.
- Rangier, M.** See also **L. Chelle**.
- Rankin, J.** See **R. D. Haworth**.
- Rao, B. S.**, **P. B. Panicker**, and **J. J. Sudborough**, essential oil of *Cyperus rotundus*, i, 1164.
- Rao, B. S.**, and **J. J. Sudborough**, kachi-grass oil, i, 1164.
- Rao, B. S.**, **J. J. Sudborough**, and **H. E. Watson**, Indian essential oils, i, 1164.
- Rao, J. C. K.**, opalescence of binary liquid mixtures, ii, 739.
- Rao, K. A. N.** See **M. O. Forster**.
- Rao, K. R.**, absorption of the green line of thallium vapour, ii, 455.
- fluorescence and channelled absorption of bismuth at high temperatures, ii, 473.
- spectra of the metals of the aluminium sub-group, ii, 610.
- Rao, K. R.** See also **A. L. Narayan**.
- Rao, M. G. S.**, **C. Srikantia**, and **M. S. Iyengar**, substitution in resorcinol derivatives. I. Nitration of derivatives of β -resorcyraldehyde, i, 675.
- Raper, H. S.**, and **A. Wormall**, tyrosinase-tyrosine reaction. II. Theory of deamination, i, 473.
- Raper, H. S.** See also **P. W. Clutterbuck**, and **F. C. Happold**.
- Raquet, D.**, and **M. Paget**, urine analysis, i, 1350.
- Raschevsky, N. von**, vaporisation of electrons, ii, 731.
- thermionic effect from the point of view of the phase rule, ii, 920.
- kinetic theory of the thermionic effect, ii, 920.
- Raschig, F.**, action of hydrogen sulphites and sulphites on nitro and nitroso compounds, i, 239.
- interaction of aniline and calcium hypochlorite, i, 243.
- constitution of organic derivatives of sulphurous acid, i, 245.
- action of sodium hypochlorite on *p*-cresoldisulphonic acid, i, 249.
- Raschig, F.**, compounds of gold with nitrogen, ii, 144.
- new oxides of nitrogen, ii, 146.
- reactions between nitrous and sulphurous acids, ii, 146.
- monochloroamine, ii, 146.
- composition of nitrogen iodide, ii, 147.
- reduction of azoimide, ii, 223.
- oxidation of azoimide, ii, 223.
- combustion of ammonia to hydrazine and di-imide, ii, 224.
- oxidation of hydrazine and its sulphonic acids, ii, 224.
- oxidation of hydroxylamine, ii, 224.
- hydroxylaminemonosulphonic acid, ii, 225.
- hydroxylaminedisulphonic acid, ii, 225.
- hydroxylamineisodisulphonic acid, ii, 225.
- hydroxylaminetrisulphonic acid, ii, 226.
- action of sulphite, hydrogen sulphite, and sulphurous acid on hydroxylamine, ii, 226.
- potassium "nitrososulphite" [di-nitrososulphonate], ii, 226.
- preparation and properties of polythionic acids, ii, 229.
- constitution of polythionic acids, ii, 230.
- potassium chloroiminodisulphonate, ii, 986.
- Rasetti, F.**, duration of the quantice state $2p_z$ of the mercury atom, ii, 340.
- Rasetti, F.** See also **E. Fermi**.
- Rask, O. S.**, and **I. K. Phelps**, determination of lipid phosphorus in cereal products, ii, 328.
- extraction and determination of lipoids in cereal products, ii, 448.
- Rasmussen, H. B.**, and **S. A. Schou**, titration of alkaloids, ii, 247.
- Rassweiler, C. F.**, and **R. Adams**, structure of dehydracetic acid, i, 299.
- Rastelli, G.**, behaviour of certain phenylhydrazones dissolved in organic solvents, i, 256.
- method of determining molecular weight, ii, 1040.
- Rastelli, G.**, and **A. Mingozzi**, constitution of pyrrolealdehyde, i, 1316.
- Rathery, F.** See **H. Bierry**, and **A. Desgrez**.
- Rau, F.** See **E. Berl**, and **H. Stobbe**.
- Rau, M. G.**, constituents of some Indian essential oils. XVI. Rate of oxidation of *d*- Δ^2 -carene and other terpenes in the presence of catalysts, i, 565.

- Rau, M. G.**, constituents of some Indian essential oils. XVI. Rate of oxidation of $d\text{-}\Delta^3$ -carene and other terpenes in the presence of catalysts, i, 687.
- Rau, M. G.**, and **J. L. Simonsen**, constituents of some Indian essential oils. XVII. Abietic acid from the resin of *Pinus longifolia*, Roxb., i, 687.
- Rauch, A.** See **E. Zintl**.
- Rauch, H.** See **F. Reindel**.
- Rauchalles, G.** See **H. H. Schlubach**.
- Rauchenberger, W.** See **H. H. Schlubach**.
- Raupenstrauch, H.** See **A. Kailan**.
- Rautenfeld, F. von**, electrical conductivity of rock salt and calcite at high temperatures, ii, 639.
- Ravenswaay, (Mlle.) H. J.** See **J. Böeseken**.
- Rawling, S. O.**, and **J. W. Glassett**, reaction between potassium persulphate and potassium iodide in gelatin sols, ii, 561.
- Ray, B. B.**, irregularity of the $L\alpha$ -doublet in the X-ray spectra, ii, 78. dependence of the $K\alpha$ -doublet with different chemical compounds, ii, 457. effect of chemical constitution on the X-ray spectrum of sulphur, ii, 914.
- Ray, H. L.** See **J. N. Mukherjee**.
- Rây, H. P.** See **P. C. Guha**.
- Rây, J. N.**, and **R. Robinson**, nitration of *m*-meconine, i, 1153.
- Rây, J. N.** See also **W. H. Perkin, jun.**
- Ray, K. C. B.** See (*Sir*) **P. C. Rây**.
- Ray, N. C. G.** See **A. C. Sircar**.
- Rây, P.**, and **P. C. Bandopadhyay**, mercury-ammonia compounds, ii, 813.
- Rây, P.**, and **P. B. Sarkar**, complex chromium ammonium compounds, ii, 230.
- Rây, P.**, and **P. V. Sarkar**, cobalt-ammine chromates and chromato-cobalt-ammines, ii, 815.
- Rây, (Sir) P. C.**, oxidation of triethylene tetrasulphide by means of potassium permanganate, i, 352. varying valency of gold with respect to mercaptanic radicles, ii, 184.
- Rây, (Sir) P. C.**, and **K. C. B. Ray**, varying valency of platinum with respect to mercaptanic radicals. II, ii, 1121.
- Rây, P. R.**, and **P. N. D. Gupta**, double ferrocyanides of hydrazine and metallic elements, i, 377.
- Rây, R. C.**, adsorption of nitrogen peroxide by silica gel, ii, 191. valency of boron, ii, 267. action of acids and water on magnesium boride, ii, 417.
- Ray, S. K.** See **P. C. Guha**.
- Rayleigh, (Lord)**, luminous vapour from the mercury arc and the progressive changes in its spectrum, ii, 738.
- Raymond, A.** See **J. J. Abel**.
- Raymond, A. L.**, mechanism of carbohydrate utilisation, i, 1493.
- Read, B. E.**, metabolism studies with chaulmoogra oil. I. Influence of chaulmoogra oil on calcium metabolism. II. Influence of hydnocarpates on urinary nitrogen partition in the dog, i, 194. chemical constituents of camel's urine, i, 1204.
- Read, J.**, and **A. M. McMath**, method of diagnosing potential optical activity. I. Optical activity of chlorobromomethanesulphonic acid, i, 1126.
- Read, J. B.** See **S. Sugden**.
- Read, R. R.**, and **F. A. Fletcher**, electro-reduction of diacetone alcohol, i, 627.
- Read, R. R.**, and **C. Lucarini**, large-scale preparation of sodium amalgam in the laboratory, ii, 587.
- Rebbeck, J. W.**, prevention of bumping when boiling liquids, ii, 996.
- Reboul, G.**, study under reduced pressure of the radiations emitted by bodies of high resistance traversed by an electric current, ii, 345.
- Réchou, G.**, *K*-series of heavy elements, ii, 457.
- Redlich, O.**, theory of electrolytic conductivity, ii, 541.
- Redonnet, T. A.**, narcotic effect of derivatives of barbituric acid, i, 862.
- Reed, W. W.**, apparatus for determining carbon dioxide, ii, 714.
- Reeve, L.**, experimental technique of photochemistry. I. The quartz mercury lamp as a photo-chemical light source, ii, 234.
- Reeve, L.** See also **R. G. Franklin**.
- Reeves, G.**, preparation of 1-*p*-sulphophenyl-3-methyl-5-pyrazolone, i, 699.
- Regno, W. del**, photo-electric emission of selenium, ii, 81. transformation of nickel in the neighbourhood of the Curie point, ii, 372.
- Rehberg, P. B.**, microtitration, i, 852. determination of carbamide in 0.1 c.c. of blood by microtitration, i, 853.
- Rehenburg, P. G. von.** See **R. Kremann**.
- Rehenburg, R. G. von.** See **R. Kremann**.
- Rehorst, K.** See **F. Ehrlich**.
- Reich, H.** See **J. von Braun**.
- Reich, R.** See **A. Job**.
- Reichart, F.** See **F. Fichter**.
- Reichel, G.** See **T. Sabalitschka**.

- Reichenbächer, E.**, world-geometrical properties indicated by quantised world-lines of the electron in the hydrogen atom, ii, 624.
orbits in the hydrogen atom as affected by the motion of the nucleus, ii, 734.
- Reichinstein, D.**, "phenomenology" of the Richardson effect, ii, 345.
mechanism of the development of a potential difference at the boundary of two phases, ii, 545.
- Reid, E. E.** See *C. E. Garland*, and *O. R. Quayle*.
- Reid, F. R.** See *F. E. Allison*.
- Reifenberg, A.** See *A. Fodor*.
- Reihlen, H., R. Illeg, and R. Wittig**, reactivity of organic substances in complex combination, i, 232.
- Reihlen, H., A. Sapper, and G. A. Kall**, partial valency of the hydroxyl group. IV. Aquo- and pyrido-triprocatechyl-arsenic and -antimonic acids, i, 912.
- Reimann, A. L.** See *P. Pringsheim*.
- Reinau, E.**, is carbon dioxide a climatic factor in plant growth? i, 213.
significance of the carbon dioxide of the soil and of the atmosphere in agriculture, i, 1526.
- Reindel, F., and H. Rauch**, new class of indigoid dyes, i, 438.
- Reinders, W.**, action of proteins on gold sols, ii, 1059.
- Reinders, W., and S. I. Vles**, reaction velocity of oxygen with solutions of inorganic salts. I. Oxidation of nitrites. II. Catalytic oxidation of arsenites, ii, 308.
reaction velocity of oxygen with solutions of inorganic salts. III. Catalytic oxidation of sulphites, ii, 567.
- Reiner, L.**, oxidation of acetaldehyde. II., ii, 213.
- Reinhold, H.** See *C. Tubandt*.
- Reinitzer, F.**, olive resin, i, 146.
Siam benzoin. IV., i, 945.
- Reinwein, H.**, basic constituents in the urine in advanced pulmonary tuberculosis, i, 189.
uroflavine, a new pathological constituent of urine, i, 725.
- Reinwein, H., and H. Heinlein**, composition of amniotic fluid [cow], i, 721.
- Reinwein, H., and K. L. Kochinski**, putrefaction of agmatine, i, 747.
- Reinwein, H.** See also *D. Ackermann*.
- Reisenegger, C.** See *H. Wieland*.
- Reiss, P.**, pH value of the interior of the cell nucleus and its experimental variations, i, 199.
- Reisser, O., and F. Hamann**, creatine content of muscles contracted by chemicals; criticism of the theory of Fekelharing and Hoogenhuyze, i, 860.
- Reissmann, E.**, temperature of steam evolved from a [boiling aqueous] solution, ii, 105.
- Reissmann, E.** See also *Erich Müller*.
- Reissner, H.**, theory of the electron, ii, 349.
- Reiter, E.** See *A. Kirpal*.
- Reitmeyer, H.** See *A. Skita*.
- Reitstötter, J.** See *J. Eggert*.
- Rekschinski, V.**, preparation of phosphorus trichloride and tribromide from red phosphorus, ii, 994.
- Remy, E.**, decomposition apparatus, ii, 589.
- Remy, H.**, conductivity measurements of very dilute solutions, ii, 299.
- Remy, H., and H. Gönningen**, activity of contact substances. II. Catalytic synthesis of water by metals of the iron group and their binary alloys with one another and with the platinum metals, in so far as they are catalytically active at the ordinary temperature, ii, 1176.
- Remy, H., and C. Koch**, mists from chemical reactions. III. Examination for electric charge, ii, 107.
- Remy, H., and A. Kuhlmann**, determination of the solubilities of sparingly soluble substances. I. Solubility of magnesium oxide in water, ii, 30.
determination of the solubilities of sparingly soluble substances. II. Solubilities of the oxides of beryllium, aluminium, zinc, cadmium, lead, copper, and silver in water, ii, 119.
- Remy, H., and H. J. Rothe**, coordination chemistry; chloroferrates of substituted ammonium bases, ii, 1088.
- Remy, H., and K. Ruhland**, mists from chemical reactions. II. Absorption of chemical mists, ii, 107.
- Remy, H., and B. Schaeffer**, activity of contact substances. I. Catalytic synthesis of water by the platinum metals and their alloys, ii, 563.
- Renfrew, A. G.** See *D. A. Hahn*, and *T. B. Johnson*.
- Renshaw, A.**, insulin, i, 617.
- Renshaw, R. R.** See *I. Bencowitz*, and *R. Hunt*.
- Reti, L.**, relationships between vegetable aromatic substances and their origin, i, 418.

- Reti, L.**, rapid determination of phenols in essential oils, using small quantities of material, ii, 604.
- Retschinsky, T.**, gold in the mercury lamp, ii, 465.
- Retter, W.** See **F. Hein**.
- Reuther, F.** See **P. Ludewig**.
- Reverdin, F.**, nitration products of *o'*-nitrotoluene-*p'*-sulpho-*p*-phenetide, i, 1409.
- Revery, G.** See **H. Wieland**.
- Reychler, A.**, photochemical studies. IV. Properties of the silver gelatinohalides, ii, 219.
photochemical studies. V. Actinoscopic reactions, ii, 1180.
- Reyerson, L. H.** See **M. Latshaw**.
- Reymann, G. C.**, pathological increase in globulin (in blood); relationship between decomposition of hæmoglobin and increase in globulin, i, 1345.
- Reynolds, F. W.**, effects of gas on the resistance and resistance-temperature coefficient of sputtered platinum films, ii, 108.
- Rheinboldt, H.**, and **H. Roleff**, mechanism of Grignard's reaction, i, 6.
reducing action of organo-magnesium halides, i, 542.
- Rheinboldt, H.**, and **O. Schmitz-Dumont**, reactions of nitrosyl chloride. I. "Nitroschlorination" with nitrosyl chloride, i, 1131.
- Rheinboldt, H.** See also **P. Pfeiffer**.
- Rhodes, E.**, chemical nature of the membrane of potato cork, i, 1026.
- Rhodes, F. H.**, and **J. T. Carty**, corrosion of certain metals by carbon tetrachloride, ii, 1084.
- Rhodes, F. H.**, **M. L. Nichols**, and **C. W. Morse**, "Höchst test" for the determination of anthracene, ii, 1005.
- Ribas, I.**, surface tension of solutions of the sodium salts of α - and β -diphenylsuccinic acids and of fumaric and maleic acids, ii, 647.
- Ribas, I.** See also **A. Madinaveitia**.
- Rice, F. O.**, and **C. F. Fryling**, kinetics of the reaction between the halogens and saturated aliphatic ketones in dilute aqueous solution, ii, 556.
- Rice, F. O.**, **C. F. Fryling**, and **W. A. Wesolowski**, temperature coefficient and mechanism of a chemical reaction, ii, 48.
- Rice, J.**, radiation theory of chemical reaction, ii, 1076.
- Rich, A. R.**, formation of bile pigment from hæmoglobin in tissue cultures, i, 711.
- Rich, A. R.**, and **J. H. Bumstead**, identity of hæmatoidin and bilirubin, i, 1475.
alleged power of bacteria to form bile pigment from hæmoglobin, i, 1482.
[non]-formation of bile pigment from hæmoglobin by the action of enzymes, i, 1482.
- Rich, E. M.** See **H. H. Lewis**.
- Richard**. See **P. Petit**.
- Richard, C. V.**, triangular benzene molecule, i, 1054.
- Richard, E.**, calorimetric determination of hydrogen-ion concentration, ii, 596.
- Richard, P.** See **H. Rivier**.
- Richards, C. E.**, determination of lead, ii, 903.
- Richards, E. M.**, and **T. M. Lowry**, rotatory dispersive power of organic compounds. XIV. Simple dispersion in 1-methylcyclohexylidene-4-acetic acid, ii, 632.
rotatory dispersive power of organic compounds. XVI. β - and π -Sulphonie derivatives of camphor, ii, 934.
- Richards, E. M.** See also **T. M. Lowry**.
- Richards, M. B.**, and **W. Godden**, Pemberton-Neumann method for the determination of phosphorus, ii, 66.
- Richards, O. W.**, effect of calcium sulphate on the growth and fermentation of yeast, i, 1011.
- Richards, T. W.**, internal pressures produced by chemical affinity, ii, 362.
- Richards, T. W.**, and **H. M. Chadwell**, densities and compressibilities of organic liquids and solutions: polymerisation of water, ii, 1049.
- Richards, T. W.**, and **F. T. Gucker**, improved differential method for the exact determination of specific heats of aqueous solutions; including results for various salts and organic acids, ii, 848.
- Richardson, A. S.**, **C. A. Knuth**, and **C. H. Milligan**, heterogeneous catalysis. II. Hydrogenation of marine oils, i, 229.
- Richardson, H. B.**, and **S. Z. Levine**, clinical calorimetry. XXXVII. Infection and the ketogenic balance, i, 723.
- Richardson, H. L.**, and **P. W. Robertson**, cryoscopic method for adsorption, ii, 383.
- Richardson, O. W.**, structure in the secondary hydrogen spectrum. I, II, and III, ii, 909, 1013.

- Richardson, O. W.**, and **T. Tanaka**, regularities in the secondary hydrogen spectrum, ii, 11, 469.
striking and breaking potentials for electron discharges in hydrogen, ii, 13.
- Richardson, O. W.**, and **A. F. A. Young**, thermionic work-functions and photoelectric thresholds of the alkali metals, ii, 343.
- Richmond, H. D.**, preparation of Nessler's solution, ii, 327.
- Richter, A.**, influence of alcohol, salts, and temperature on the change point of some indicators and means of avoiding errors in acidimetric titrations, ii, 237.
rôle of auxiliary pigments in the *Cyanophyceae*, i, 1218.
- Richter, E.** See **H. P. Kaufmann**.
- Richter, H.** See **B. Neumann**.
- Richter, K.** See **K. Ziegler**.
- Richter-Quittner, M.**, sugar content of blood-corpuscles, i, 95.
mineral content of blood plasma, i, 178.
- Richtet, C. jun.**, and **R. Monceaux**, effect of cooking on metabolism of meat, i, 859.
- Richtmyer, F. K.**, relative number of *K* and *L* electrons expelled by X-rays, ii, 1129.
- Richtmyer, F. K.**, and **R. C. Spencer**, structure of the *K α* lines of molybdenum, ii, 1101.
width of the *K_H* absorption discontinuity in silver, ii, 1102.
- Richtmyer, F. K.** See also **F. W. Warburton**.
- Rideal, E. K.**, reduction potential of dicyan-quinhydrone, ii, 546.
- Rideal, E. K.**, and **E. G. Williams**, action of light on the ferrous ferric iodine iodide equilibrium, ii, 416.
- Rideal, E. K.**, and **W. M. Wright**, low-temperature oxidation at charcoal surfaces. I. Behaviour of charcoal in the absence of promoters, ii, 806.
- Rideal, E. K.** See also **A. P. Cary**, **A. K. Goard**, **R. G. W. Norrish**, and **R. K. Schofield**.
- Ridge, B. P.** See **C. Birtwell**.
- Ridgway, L. R.**, and **R. Robinson**, new route to the 3-hydroxybenzopyrylium salts, i, 54.
3-chlorobenzopyrylium derivatives, i, 693.
- Riding, R. W.**, and **E. C. C. Baly**, occurrence of helium and neon in vacuum tubes, ii, 925.
- Riding, R. W.** See also **J. S. Thomas**.
- Ridley, G. N.**, catalytic effects in the oxalate-permanganate reaction, ii, 689.
theories on the constitution of natural silicates, ii, 1130.
- Ridout, C. B.** See **H. G. Barbou**.
- Ridout, J. H.** See **C. H. Best**.
- Ried, G.** See **A. Eibner**.
- Riede, A.**, electrical conductivity and Hall effect for nickel films, ii, 355.
- Riedel, J. D.**, preparation of *apocholic acid*, i, 406.
preparation of cyclic ketones, i, 407.
preparation of derivatives of 2-phenyl-quinoline-4-carboxylic acid, i, 1170.
ester of salicylic acid, i, 1423.
barbituric acid derivatives, i, 1453.
- Riegel, E. R.**, and **L. Widgoff**, new pattern formed by coloured salts in solid gels, ii, 863.
- Rieman, W.**, and **P. A. van der Meulen**, unimolecular soap films in emulsions, ii, 1148.
- Riepenkröger, K.** See **R. Anschütz**.
- Riesenfeld, E. H.**, formation of ozone and hydrogen peroxide in the oxy-hydrogen flame, ii, 148.
formation and decomposition of polythionates, ii, 229.
formation of ozone in incandescent capillaries, ii, 989.
- Riesenfeld, E. H.**, and **W. Haase**, action of ozone on aqueous colloidal solutions of inorganic substances, ii, 988.
- Rieser, A.** See **E. Blanck**.
- Riety, L.**, electromotive force of filtration, ii, 796.
- Riiber, C. N.**, mutarotation. IV. Solution volume and refraction constants of α - and β -methylglucoside, i, 8.
- Riiber, C. N.**, and **V. Esp** [with **E. Berner**], mutarotation. V. Solution volume and refraction constants of levulose, i, 635.
- Riiber, C. N.**, **T. Sørensen**, and **K. Thorkelsen**, mutarotation. VI. Solution volumes and refraction constants of some polyhydric alcohols, i, 773.
- Rimington, C.**, effect of ammonium sulphate and other salts on the colorimetric determination of phosphorus, i, 183.
- Rinde, H.** See **T. Svedberg**.
- Rinderknecht, R.**, effect of reading errors on the rotatory dispersion constants, ii, 357.
- Rinderknecht, R.** See also **H. Rupe**.
- Rindfleisch, H.** See **P. Hirsch-Mamroth**.
- Ringer, W. E.**, protein and potassium ions, ii, 662.

- Rinkenbach, W. H., and R. E. Hall**, heats of fusion of trinitrotoluene, "tetryl," and picric acid, ii, 207.
- Rippel, A.**, significance of the hydrogen-ion concentration for micro-organisms and their activity in the soil, i, 220.
- Rippel, A., and O. Ludwig**, physiological equilibria in plants; dependence of the growth constant of maize on nitrogen nutrition, i, 485.
- Risi, J.** See **A. Bistrzycki**.
- Riso, P.** See **P. Karrer**.
- Ritter, J. J.** See **M. T. Bogert**.
- Rivier, H., and P. Richard**, action of some chlorides derived from carbonic acid on dimethylaniline, i, 1416.
- Rivière, D. de la, and E. Roux**, flocculation of antimeningococcal sera in the presence of alcoholic extracts of meningococci, i, 749.
- Rivière, G., and G. Pichard**, substances contained in the leaves of apple trees and in apple skins, i, 345.
- Rizzi, F.**, rotatory powers of fluoro derivatives of benzene and its homologues as a function of the wave-length, ii, 357.
- Rjachina, E.** See **N. D. Zelinski**.
- Roach, W. A.**, a laboratory apparatus for the wet grinding of plant tissues out of contact with air, i, 1517.
- Roake, C. E.**, preparation of *o*-tolidine solution for the determination of chlorine [in chlorinated water], ii, 432.
- Roberts, C., and T. B. Johnson**, preparation of derivatives of diphenic acid possessing the properties of local anesthetics, i, 816.
- Roberts, E., and E. E. Turner**, relative rates of conversion of phenoxyphenyl-dichloroarsine and its chloro derivatives into chlorophenoxarsines, i, 1339.
- Roberts, H. M.** See **H. McCombie**.
- Roberts, H. S.**, black body for optical pyrometer calibration, ii, 756.
- Roberts, H. S., and T. Stadnichenko**, micro-furnace for high magnifications, ii, 707.
- Roberts, J. K.**, thermal expansion of bismuth crystals, ii, 94.
- Roberts, K. G.**, preparation of ethyl acetate and ethyl acetoacetate, i, 114.
- Roberts, R. W.**, magnetic rotatory dispersion of certain paramagnetic solutions, ii, 478.
- Robertson, A. C.**, promoter action in homogeneous catalysis. II. Mechanism of the promotion of copper salts in the catalytic decomposition of hydrogen peroxide by ferric salts, ii, 690.
- Robertson, G. T.** See **E. L. Hirst**.
- Robertson, J. B.**, reciprocal salt pair, $\text{Na}_2\text{Cr}_2\text{O}_7 + 2\text{KCl} \rightleftharpoons \text{K}_2\text{Cr}_2\text{O}_7 + 2\text{NaCl}$, ii, 121.
anode phenomena in the electrolysis of potassium ethyl malonate, ii, 1178.
- Robertson, J. K., and J. T. Thwaites**, blackening of a photographic film by X-rays, ii, 575.
- Robertson, J. M., C. A. Kerr, and G. G. Henderson**, action of formic acid on certain sesquiterpenes, i, 1293.
- Robertson, P. W.** See **H. L. Richardson**.
- Robertson, T. B.**, influence of certain dyes on the multiplication of infusoria (*Enchelys*) with especial reference to the acridine dyes acriflavine and proflavine, i, 1012.
influence of cholesterol and oxycholesterol on the multiplication of infusoria (*Enchelys*), i, 1119.
- Robinson, C.** See **H. R. Kruyt**.
- Robinson, F. W.** See **W. T. Anderson, jun.**
- Robinson, G. C.** See **C. S. Burwell**.
- Robinson, (Mrs.) G. M., and R. Robinson**, synthesis of certain higher aliphatic compounds. I. Synthesis of lactic acid and of oleic acid, i, 354.
- Robinson, G. W.**, mechanical composition curves of soils, clays, and other granular substances, i, 224.
- Robinson, G. W., and J. O. Jones**, determinations of the degree of humification of soil organic matter, i, 491.
- Robinson, G. W., and R. Williams**, base exchange in relation to the problem of soil acidity, i, 222.
- Robinson, G. W.** See also **W. McLean**.
- Robinson, H.**, K-absorption levels of the light atoms, ii, 614.
- Robinson, H.** See also **O. C. de C. Ellis**.
- Robinson, H. R.**, X-ray terms and intensities, ii, 728.
- Robinson, M. E., and R. A. McCance**, oxidative deamination by a basidiomycete enzyme, i, 745.
- Robinson, M. E.** See also **A. B. Callow, and (Mrs.) M. W. Onslow**.
- Robinson, P. L., and H. V. A. Briscoe**, atomic weight of bromine; inseparability of the isotopes by fractional crystallisation, ii, 620.
- Robinson, P. L., G. E. Stephenson, and H. V. A. Briscoe**, determination of the melting and transition points of potassium dichromate, ii, 374.
- Robinson, P. L.** See also **H. V. A. Briscoe**.

- Robinson, R.**, polarisation of nitrosobenzene, i, 800.
 qualitative test for weak [organic] bases, ii, 606.
X-ray crystal analysis as an auxiliary in organic chemical research, ii, 745.
- Robinson, R.**, and **J. Shinoda**, synthesis of 2-styrylchromonol derivatives, i, 1301.
- Robinson, R.** See also **James Allan**, **J. W. Armit**, **W. Baker**, **J. M. Guland**, **J. Kalf**, **P. Lions**, **T. Malkin**, **W. H. Perkin, jun.**, **D. D. Pratt**, **J. N. Ráy**, **L. R. Ridgway**, and (*Mrs.*) **G. M. Robinson**.
- Robinson, W. O.**, and **R. S. Holmes**, soil colloids, i, 624.
- Robison, R.**, and **K. M. Soames**, chemical study of defective ossification in rachitic animals, i, 462.
- Robison, R.** See also **M. Martland**.
- Robison, S. C.** See **A. M. Hjort**.
- Robl, R.**, solubility of nickel in water containing carbon dioxide, ii, 231.
- Robson, W.**, metabolism of tryptophan. I. Synthesis of racemic *Bz*-3-methyl-tryptophan, i, 297.
- Robson, W.** See also **A. B. Hastings**.
- Rocard, Y.**, diffusion of light in fluids, ii, 265.
 hypothesis of molecular association, ii, 1045.
- Rocasolano, A. de G.**, ultramicroscopy and coagulation, ii, 523.
- Roche, J.**, respiration of tissues in avitaminosis and inanition, i, 462.
- Roche, J.** See also **M. Nicloux**, **E. F. Terroine**, and **L. Thivolle**.
- Rodebush, W. H.**, **J. W. Andrews**, and **J. B. Taylor**, temperature-entropy diagrams for nitrogen and oxygen, ii, 492.
- Rodebush, W. H.**, and **A. L. Dixon**, entropies of the vapours of zinc and lead, ii, 492.
- Rodebush, W. H.**, and **J. C. Michalek**, atomic heat capacities of iron and nickel at low temperatures, ii, 949.
- Rodebush, W. H.**, and **T. de Vries**, vapour pressure of sodium, ii, 1142.
- Rodebush, W. H.** See also **F. Hovorka**.
- Rodillon**, detection of urobilin in urine and determination of chlorides in blood, i, 722.
 detection of citric acid, ii, 246.
- Rodio, G.**, pigments of the Florideæ, i, 621.
- Rodionov, W.**, and **W. Matveev**, products of the action of nitrous acid on *o*- and *p*-phenolsulphonic acids. I., i, 83.
- Rödt, V.**, and **E. Kindscher**, separation of small quantities of calcium from large amounts of magnesium, ii, 158.
- Röhre, K.**, distillation of arsenious, antimonious, and stannic chlorides, ii, 157.
- Röhrig, H.**, recrystallisation phenomena [in aluminium], ii, 282.
- Roell, E.** See **A. Sieverts**.
- Rörig, W.** See **K. Schaum**.
- Rössler, A.** See **M. Le Blanc**.
- Rössler, G.** See **G. Scheibe**.
- Röthler, H.** See **S. Edlbacher**.
- Röthlisberger, A.**, synthesis of 2'-chloroflavone and 2'-chloroflavanol, i, 571.
- Rötth, A. von.** See **J. Melly**.
- Roffo, A. H.**, action of *X*-rays on cholesterol, i, 393.
- Roffo, A. H.**, and **L. M. Correa**, ultrafilterable calcium in the serum of cancerous subjects, i, 999.
 ionic conflict and its relations with the physico-chemical constants of plasma, ii, 293.
- Roffo, A. H.**, and **S. M. Neuschloss**, influence of Rb, SeO₃, and SeO₄ ions on the respiration of normal and neoplastic cells, i, 1006.
- Roger, M.** See **A. Orékhov**.
- Roger, R.**, synthesis of glycols from atrolactic acid, i, 659.
- Roger, R.** See also **A. McKenzie**.
- Rogers, T. H.** See **C. F. A. Pantin**.
- Rogozinski, F.**, and **M. Starzevska**, distribution of nitrogen in urine of ruminants, i, 1355.
- Roh, N.** See **B. Emmert**.
- Rohmann, C.** See **R. Fricke**.
- Rohner, M.** See **F. Herrmann**.
- Rolg, G. y.**, and **K. Helmholz**, determination of carbamide in blood, cerebro-spinal fluid, and urine, using permute, i, 853.
- Rokkaku, T.** See **S. Mitsukuri**.
- Roleff, H.** See **H. Rheinboldt**.
- Rolf, I. P.** See **P. A. Levene**.
- Roll, (Mme.) C.** See **G. Korschun**.
- Rolla, L.**, and **G. Piccardi**, chemical statics of electronic phenomena; mass-action law applied to electronic equilibrium, ii, 1018.
 chemical statics of electronic phenomena, ii, 1018, 1105.
- Rollefson, G. K.**, characteristic *X*-rays from lithium, ii, 722.
- Rollefson, G. K.** See also **B. H. Carroll**.
- Rollet, A. P.**, dissolution of nickel in sulphuric acid under the influence of an alternating current, ii, 799.
- Rollett, A.**, and **A. Schmidt**, β -amyirin from Manila elemi resin. III., i, 945.

- Romeo, G.**, apparently new component of oil of lemon, i, 1293.
determination of formaldehyde, ii, 1009.
- Romeo, G.**, and **E. D'Amico**, action of sulphites and hydrogen sulphites on aldehydes and ketones and its application to the quantitative determination of these compounds, i, 1380.
- Romer, W.** See **W. Swientoslawski**.
- Romieu, M.**, reaction of dry proteins applicable to histochemistry, i, 607.
- Rona, P.**, **A. Fiegel**, and **Y. Nakahara**, liver and blood catalase. II., i, 1505.
- Rona, P.**, **F. Haurowitz**, and **H. Petow**, distribution of ions in blood-serum. II., i, 95.
- Rona, P.**, and **H. Kleinmann**, nephelometric investigations on enzymic hydrolysis of proteins. II. Influence of ions on peptic digestion, i, 103.
nephelometric investigations on enzymic hydrolysis of proteins. III. Determination of peptic and tryptic digestion of casein, i, 473.
nephelometric investigations on enzymic hydrolysis of proteins. IV. Kinetics of peptic hydrolysis of serum-albumin, i, 1507.
- Rona, P.**, and **A. Lasnitzki**, determination of lipase in body fluids and in tissues, i, 471.
- Rona, P.**, **E. Mislowitzer**, and **S. Seidenberg**, autolysis. IV., i, 335.
- Rona, P.**, **H. Petow**, and **E. Wittkower**, distribution of ions in the blood. III., i, 94.
- Rona, P.**, and **P. E. Speidel**, hydrolysis of leucine ester by pancreatic enzymes, i, 103.
- Rooney, T. E.**, determination of oxygen in pure iron, ii, 327.
- Rosbaud, P.**, and **E. Schmid**, increase in strength of single crystals by alloying and cold-drawing, ii, 488.
- Rose, A. R.**, micro determination of nitrogen, ii, 900.
- Rose, A. R.**, **G. J. Shiple**, and **C. P. Sherwin**, oxidation of cystine and cysteine in the animal organism, i, 190.
- Rose, D. C.** See **P. Lowe**.
- Rose, (Sir) T. K.**, density of rhodium, ii, 278.
- Rose, W. C.**, and **K. G. Cook**, relation of histidine and arginine to creatine and purine metabolism, i, 1003.
- Rose, W. C.**, and **P. S. Dimmett**, nephropathic action of the dicarboxylic acids and their derivatives. IV. Mucic acid, i, 733.
- Rose, W. C.**, **C. J. Weber**, **R. C. Corley**, and **R. W. Jackson**, nephropathic action of the dicarboxylic acids and their derivatives. III. Acids with six to nine carbons, i, 733.
- Rosen, I.** See **J. A. Fordyce**.
- Rosén, W.** See **B. Holmberg**.
- Rosenbach, A.** See **A. Schönberg**.
- Rosenbaum, S.**, behaviour of amino-acids in the blood; significance of the liver in protein metabolism, i, 464.
- Rosenberg, A.** See **H. Bechhold**, and **A. Fodor**.
- Rosenblum, S.**, determination of the ratio of the velocities of the two groups of α -particles emitted from the active deposit of thorium, ii, 463.
- Rosenbohm, A.** See **K. Bierich**.
- Rosenfeld, A.** See **M. A. Rakuzin**.
- Rosenfeld, H.** See **E. Speyer**.
- Rosenfeld, L.**, combination of auxoureases with the enzyme, i, 336.
behaviour of urease towards alcohol, i, 336.
phytochemical reduction of $\alpha\alpha\beta$ -trichlorobutaldehyde to $\alpha\alpha\beta$ -trichlorobutanol, i, 615.
sulphatase. VI. Occurrence and behaviour of sulphatase in human organs, i, 743.
- Rosenfeld, L.** See also **Martin Jacoby**.
- Rosenheim, A.**, internally complex borates, i, 31.
- Rosenheim, A.**, and **I. Baruttschisky**, bismuth salts of pyrocatechol, i, 808.
- Rosenheim, A.**, and **F. Lehmann**, internally complex beryllates, ii, 220.
- Rosenheim, A.**, and **W. Plato**, optically active tripyrocatechylarsenic acids, i, 1412.
- Rosenheim, A.**, and **H. yü Mong**, salts and complex compounds of quadrivalent vanadium, i, 1411.
- Rosenheim, M. C.** See **H. W. Dudley**.
- Rosenheim, O.**, isolation of spermine phosphate from semen and testis, i, 180.
- Rosenheim, O.**, and **J. C. Drummond**, delicate colour reaction for the presence of vitamin-A, i, 1515.
- Rosenheim, O.** See also **J. C. Drummond**, and **H. W. Dudley**.
- Rosenmund, K. W.**, and **A. Joithe**, aluminium oxide as a condensing agent and the rôle of carriers in catalysis, i, 1403.
- Rosenmund, K. W.**, and **G. Jordan**, mechanism of the catalytic reduction of oximes and nitriles and a new method for the preparation of secondary amines, i, 245.
catalytic reduction of aromatic aldehydes, i, 257.

- Rosenov, L. P.**, action of bile on the digestion of proteins by pancreatic juice, i, 1507.
- Rosenthal, A.** See *H. Freundlich*.
- Rosenthal, S. M.**, liberation of adsorbed substances from proteins; a function of the bile salts. I., i, 1203.
- Rosenthal, S. M.**, and *E. C. White*, hepatic function. VI. Pharmacological behaviour of phthalein dyes; value of phthalein compounds in estimation of hepatic function, i, 101.
- Rosenthaler, L.**, distribution of linamarase enzymes of *Phaseolus lunatus*, i, 1008.
- influence of nitrogenous substances on dextrose determinations, ii, 1006.
- Rosin, J.** See *W. D. Collins*.
- Rosinsky, W.** See *A. Sonn*.
- Ross, J. F.** See *G. F. Smith*.
- Ross, P. A.**, and *D. L. Webster*, Compton effect with no box around the tube, ii, 289.
- Compton effect: its relation to Duane's box effect, ii, 270.
- Ross, P. A.** See also *D. L. Webster*.
- Ross, S. G.** See *J. L. Gamble*.
- Ross, V.**, potassium chlorate: its influence on the blood-oxygen-binding capacity (haemoglobin concentration), its rate of excretion, and quantities found in the blood after feeding, i, 732.
- Ross, W. H.**, and *R. M. Jones*, solubility and freezing-point curves of hydrated and anhydrous orthophosphoric acid, ii, 971.
- Roszbach, E.** See *H. P. Kaufmann*.
- Rosseland, S.**, spectral theory and the origin of the "nebulium" lines, ii, 3.
- Rosset, H.** [derivative of] phosphorus chloronitride, i, 600.
- Rossi, G.**, and *M. Andreanelli*, electrical conductivity and coagulating power of acids and bases, ii, 394.
- Rossi, G.**, and *A. Basini*, theory of dyeing, ii, 286.
- Rossi, G.**, and *C. Bocchi*, colloidal mercuri-organic compounds, i, 601.
- Rossi, G.**, and *B. Cecchetti*, action of carbon disulphide on benzidine, i, 701.
- Rossi, G.** See also *G. Plancher*.
- Rosner, E.** See *E. Abderhalden*.
- Rost, C. O.**, and *E. A. Fieger*, effect of drying on the acidity of soil samples, i, 348.
- Rostock, P.**, determination of pepsin in gastric juice, i, 1009.
- Roth, F.** See *L. Claisen*.
- Roth, W. A.**, test of the efficiency of a stirring contrivance, ii, 150.
- buffer method in high-temperature calorimetry, ii, 949.
- Roth, W. A.**, and *R. Lassé*, heats of combustion of decahydronaphthalenes and β -decalones, ii, 275.
- combustion micro-bomb and micro-calorimeter. II., ii, 591.
- Roth, W. A.**, and *W. Naeser*, white and black diamonds and their relation to [other forms of] carbon, ii, 1140.
- Rothe, H. J.** See *H. Remy*.
- Rother, J.** See *T. Brugsch*.
- Rothler, H.** See *K. Felix*.
- Rothmann, H.** See *K. Dresel*.
- Rothmund, V.**, combination of water in the zeolites, ii, 710.
- Rothmund, V.** [with *F. Eisenkolb* and *R. Steinherz*], influence of anions on the "passivability" of metals, ii, 131.
- Rothstein, E.**, *A. Stevenson*, and *J. F. Thorpe*, ring-chain tautomerism. XIV. Structure of Balbiano's acid, i, 884.
- Rothstein, K.**, trimethylenedithioglycollic [trimethylenedithiolacetic] acid, i, 231.
- Rothwell, C. S.**, direct precipitation of calcium in cow's milk, i, 1350.
- Rotinjanc, L. A.** See *N. N. Nagornov*.
- Rougé, E.** See *J. T. Durand*.
- Roughton, F. J. W.** See *H. Hart-ridge*.
- Roush, G. A.**, and *M. Miyake*, equilibrium of the system, cryolite-alumina, ii, 974.
- Rouse, G. F.**, and *G. W. Giddings*, ionisation of mercury vapour by ultra-violet light, ii, 919.
- Rousseau, E.**, separation of nickel and iron in presence of chromium by electrolysis, ii, 441.
- Roussel.** See *F. Bordas*.
- Roux, E.** See *D. de la Rivière*.
- Rouyer, E.**, association of polyhydric phenols, i, 911.
- Row, K. K.** See *B. B. Dey*.
- Rowe, A. W.**, and *J. Chandler*, metabolism of galactose. II. Blood-sugar curves, i, 1354.
- Rowe, A. W.**, and *B. S. Wiener*, relative reducing powers of some common sugars, i, 885.
- Rowe, F. M.**, and *V. J. Tarbett*, hydrogenation in the naphthalene series; properties of derived azo dyes, i, 317.
- Rowe, H. N.** See *S. Dushman*.
- Roy, L.**, hydrogen-ion concentration of some injection liquids; influence of sterilisation, i, 1084.

- Roy, S. C.**, modification of the laws of emission of ions from hot metals by the quantum theory, ii, 731.
application of quanta in the theory of chemical reactivity, ii, 1167.
- Royds, T.**, apparent tripling of certain lines in arc spectra, ii, 249.
spectroheliograms with different parts of the H_{α} line, ii, 450.
- Royer, L.**, orientation of ammonium iodide by muscovite mica, ii, 270.
regular growth of crystals of different species, ii, 749.
- Royer, L.** See also *G. Foex*.
- Royer, M.**, orientation of ammonium iodide crystals on the surface of muscovite, ii, 110.
rotatory power of cholesteric substances, ii, 184.
- Roylance, J.** See *R. Burtles*.
- Ruark, A. E.**, multiple electron transitions and primed spectral terms, ii, 1016.
- Ruark, A. E.**, and *G. Breit*, proposed test of the space quantisation of atoms in a magnetic field, ii, 477.
- Ruark, A. E.**, and *R. L. Chenault*, stages in the excitation of the spectra of cadmium, ii, 725.
fine structures of spectrum lines, ii, 1103.
- Rubenstein, L.**, substitution in derivatives of quinol ethers, i, 1278.
substitution in vicinal trisubstituted benzene derivatives. III., i, 1428.
- Rubino, P.** See *J. A. Collazo*.
- Rudberg, E.** See *H. von Euler*.
- Rudberg, K.** See *H. von Euler*.
- Rudd, G. V.**, separation of proteoses derived from egg-albumin, i, 320.
proteoses, peptones, and polypeptides, i, 321.
- Rudolfs, W.**, influence of water and salt solution on absorption and germination of seeds, i, 1120.
selective absorption of ions by seeds, i, 1367.
effect of seeds on hydrogen-ion concentration equilibrium in solution, i, 1368.
- Rudy, R.** See *A. G. Worthing*.
- Ruell, D. A.** See *W. N. Haworth*.
- Ruer, K.**, Le Chatelier principle and its application to the crystallisation processes in binary systems, ii, 125.
- Ruer, R.**, and *K. Bode*, copper oxide and the atomic weight of copper, ii, 620.
- Ruff, O.**, oxides, metals, and carbides at high temperatures, ii, 579.
- Ruff, O.**, and *W. Busch*, electrolytic production of magnesium (from fused mixtures containing the oxide), ii, 569.
- Ruff, O.**, and *B. Hirsch*, fractional precipitation. I. Dependence on solubility products, dissociation constants, constitution of the precipitate, etc., ii, 992.
- Ruff, O.**, and *E. Hohlfeld*, active charcoal. III. Spacial and stoichiometric relations of adsorption (chemical complex formation), ii, 192.
- Ruff, O., G. Schmidt, and W. Olbrich**, amorphous carbon and graphite, ii, 1125.
- Ruff, O.**, and *F. Thomas*, reduction of inorganic halides. IV. Tantalum pentachloride, ii, 1187.
reduction of inorganic halides. V. Derivatives of tantalum trichloride, ii, 1187.
- Ruff, O.**, and *E. Vidic*, ruthenium pentafluoride; separation of platinum and ruthenium, ii, 443.
valency of ruthenium; ruthenium tetroxide and ruthenium halides, ii, 480.
- Ruggeri, G.**, dibenzoylglyoxime peroxide, i, 79.
- Ruggeri, G.** See also *G. Ponzio*.
- Ruggli, P.**, and *E. Brunner*, *o*-nitroaldehydes of the anthraquinone series, i, 561.
- Ruggli, P.**, and *A. Fischli*, dyeing processes. IV. Influence of particle size on the process of dyeing, ii, 194.
- Ruhland, K.** See *H. Remy*.
- Rule, H. G.**, and *T. R. Paterson*, influence of substituents on chemical and physical properties: the velocity of reaction between substituted benzoic anhydrides and an aliphatic alcohol, i, 29.
- Rule, H. G.**, and *J. Smith*, optical activity and the polarity of substituent groups. II. Menthylesters of substituted acetic acids, ii, 1120.
- Rump, W.**, Döpler effect in the reflexion of resonance fluorescence, ii, 473.
resonance fluorescence of the line 1849 Å. of mercury vapour, ii, 473.
- Rump, W.** See also *E. Warburg*.
- Runge, C.**, Paschen-Back effect, ii, 341.
- Runge, H.** See *G. Ettisch*.
- Ruopp, W.** See *P. W. Neber*.
- Ruoss, H.**, clinical detection of dextrose in urine with alkaline copper-glycerol solution, i, 185.
reducing power of organic compounds in alkaline solution and the determination of sugar by analysis in stages and with separation of colloidal cuprous oxide, ii, 244.

- Rupe, H.**, and **F. Gisiger**, catalytic reduction of cyano compounds, i, 1095.
- Rupe, H.**, and **G. A. Guggenbühl**, conversion of isatin into a tetrahydroquinazoline derivative, i, 1100.
- Rupe, H.**, and **E. Hodel**, catalytic reduction of β -methylbutyronitrile and of α -cyanocamphor, i, 275.
- Rupe, H.**, and **E. Kopp**, influence of constitution on the rotatory power of optically active substances. XVIII. Anomalous rotation-dispersion of ketones, i, 274.
- Rupe, H.**, and **R. Rinderknecht**, influence of constitution on the rotatory power of optically active substances. XVIII. Influence of acetylenic linkings, i, 533. derivatives of citronellol and their optical rotations, i, 658.
- Rupe, H.**, and **E. Tschopp**, β -camphorylpropionic acid and the inner anhydride of γ -borneolpropyl alcohol, i, 1079.
- Rupe, H.**, and **F. Vonaesch**, influence of constitution on the rotatory power of optically active substances. XIX. Influence of acetylenic linkings, i, 499.
- Rupp, E.**, luminescence of phosphors under magnetic and electric fields, ii, 13.
- Hahn's iron titration method and Rosenmund's modification thereof, ii, 71.
- excitation of phosphorescence by high-frequency radiation, ii, 262.
- Rupp, E.** [with **W. Wegner** and **P. Maihs**], titration of mercury with potassium cyanide and Jellinek's titration of weakly dissociated salts, ii, 716.
- Rupp, E.**, and **G. Siebler**, bromate determination of hydrogen peroxide, peroxides, and per-salts, ii, 432.
- Rupp, E.**, **G. Siebler**, and **W. Brachmann**, determination of antimony in stibnite and in antimony pentasulphide, ii, 244.
- Ruppert, F. von.** See **A. Kircher**.
- Ruschhaupt, F.** See **R. Fricke**.
- Russell, J. C.**, **E. G. Jones**, and **G. M. Bahr**, temperature and moisture factors in nitrate production, i, 1031.
- Russell, A.** [with **H. F. Harwood**], native arsenic in Cornwall, ii, 429.
- Russell, A. S.**, passivity of iron and other metals, ii, 406.
- transformation of mercury into gold, ii, 924.
- Russell, A. S.**, and **D. C. Evans**, determination of metals dissolved in mercury; rapid method of purifying mercury, ii, 1205.
- Russell, A. S.** See also **W. P. Widdowson**.
- Russell, H. N.**, intensities of lines in multiplets, ii, 614.
- intensities of lines in multiplets. I. Theory, ii, 725.
- intensities of lines in multiplets. II. Observed data, ii, 725.
- Russell, H. N.**, and **F. A. Saunders**, regularities in the spectra of the alkaline earths, ii, 911.
- Russell, R. P.** See **W. G. Whitman**.
- Russell, W. W.**, and **H. S. Taylor**, promoter action of thoria on nickel catalysts, ii, 1071.
- Ruszczynski, P.**, precipitation curves of serum proteins, i, 322.
- Ruszczynski, P.** See also **M. Bálint**.
- Ruszkowski, M.**, use of iodic acid and potassium hydrogen carbonate for the preparation of standard solutions, ii, 156.
- Rutgers, A. J.** See **A. Smits**, and **J. P. Wibaut**.
- Rutherford, (Sir) E.**, disintegration of atomic nuclei, ii, 348.
- Rutherford, (Sir) E.**, and **J. Chadwick**, artificial disintegration of elements, ii, 83.
- scattering of α -particles by atomic nuclei and the law of force, ii, 1109.
- Ruzicka, L.**, conversion of camphor into fenchone, i, 274.
- Ruzicka, L.**, and **E. Capato**, higher terpene compounds. XXIV. Ring formation in sesquiterpenes; complete synthesis of bisabolene and of a hexahydrocadaline, i, 943.
- Ruzicka, L.**, **J. Meyer**, and **M. Pfeiffer**, higher terpene compounds. XXVI. Degradation of abiatic acid by potassium permanganate and ozone, i, 1419.
- Ruzicka, L.**, and **M. Pfeiffer**, higher terpene compounds. XXV. Anhydride formation and nitric acid oxidation of abiatic acid, i, 1419.
- Ruzicka, L.**, **C. F. Seidel**, and **F. Liebl**, syntheses in the quinine series. IV. Aliphatic quinatoxins, monocyclic quinaketones, and carbinols, i, 289.
- Ruzicka, L.** See also **H. Staudinger**.
- Ryan, H.**, and **P. J. Cahill**, condensation of aldehydes with methyl ethyl ketone, i, 558.
- Ryan, H.**, and **J. J. Lennon**, condensation of aldehydes with methyl ethyl ketone, i, 1282.
- Ryan, H.**, and **M. J. Shannon**, condensation of aldehydes with butylacetoacetic ester [ethyl α -acetylhexoate], i, 558.
- Ryan, H.** See also **J. J. Drumm**.

Ryder, *E. A.* See *W. E. Garner*.

Ryschkewitsch, *E.*, melting point and vapourisation of graphite, ii, 276, 374.

Ryskaltchouk, *A.* See *S. Kostytshev*.

Rzymkowski, *J.*, determination of benzoquinone by means of thiosulphate, ii, 907.

S.

Sabalitschka, *T.*, and *W. Erdmann*, iodometric determination of methylene-blue, ii, 908.

Sabalitschka, *T.*, and *C. Jungermann*, behaviour of the alkaloids of alkaloid-containing seeds during germination, i, 1223.

simple determination of the alkaloid-content of *nux vomica* and of *Strychnos* preparations, ii, 608.

Sabalitschka, *T.*, and *G. Kubisch*, urea oxalates and their determination as secondary oxalate in fertilisers, i, 347.

Sabalitschka, *T.*, and *W. Moses*, behaviour of calcium fluoride in strong acids, ii, 417.

Sabalitschka, *T.*, and *G. Reichel*, alkalimetric determination of aluminium salts and free acids in the presence of one another, ii, 602.

Sabalitschka, *T.*, and *C. Schultze*, malt amylase. I. Determination of the dextrin-forming and saccharifying action of amylase. II. Influence of different experimental conditions on the action of amylase. III. Influence of adsorbents on the dextrin-forming and saccharifying action of amylase. IV. Influence of caffeine and aldehydes on the dextrin-forming and saccharifying action of amylase, i, 1358.

Sabbatani, *L.*, pharmacological investigations on iron. VI. Colloidal ferrous sulphide prepared in presence of sugar, i, 196.

Saccardi, *P.*, simplification in the detection of certain cations, ii, 158.

Saccharin-Fabrik, Aktien-Gesellschaft vorm. Fahlberg, List, & Co., preparation of mercury derivatives of phenols substituted in the nucleus, i, 1197.

Sacchetto, *I.*, lipin and fat metabolism of the liver cells of fasting animals and animals poisoned with phosphorus. III. Course of the fat-infiltration into surviving liver tissue *in vitro*, i, 1357.

Sachs, *G.*, hardening of metals, ii, 370.

Sachs, *G.*, and *L. Balassa*, coloured compounds of mercury sulphide and mercaptide, i, 1034.

Sachs, *G.*, and *H. Blessl*, mercury compounds of *o*-thiolbenzoic acid, i, 1274.

Sachs, *G.* See also *F. Saefel*.

Sachs, *H.*, and *A. Klopstock*, serological differentiation of lecithin and cholesterol, i, 1486.

Sackett, *G. E.*, modification of Bloor's method for determination of cholesterol in blood, i, 995.

Sacklovski, *A.*, X-ray investigation of the structure of alloys, ii, 939.

Sacklovski, *A.* See also *F. Kruger*.

Sacks, *J.* See *B. H. Nicolet*.

Sad, *S.* See *R. Lesscr*.

Sadikov, *W. S.*, products of the catalytic hydrolysis of goose feathers (investigation of the syrup soluble in amyl alcohol), i, 175.

nitrogen distribution in individual fractions of catalytically hydrolysed collagen, i, 176.

Sadikov, *W. S.*, and *A. K. Michailov*, micro determination of molecular weights by the method of *K. Rast*, ii, 32.

Saefel, *F.*, and *G. Sachs*, mechanical properties and structure of some alloys with a restricted range of mixed crystals; silver-rich binary solid solutions containing magnesium, aluminium, tin, zinc, cadmium, and manganese, ii, 1051.

Saeger, *A.*, growth of duckweeds in mineral nutrient solutions with and without organic extracts, i, 755.

Saerens, *E.*, compressibility, internal pressure, and chemical affinity, ii, 91.

Safar, *I.* See *F. Kehrmann*.

Saftien, *K.*, acridine syntheses from 4:5-benzocoumarandione and aniline, i, 1318.

Saftien, *K.* See also *K. Fries*.

Sagastume, *C. A.*, and *C. E. Spegazzini*, biochemical method for the determination of vitamins, i, 209.

Saha, *M.*, spectrum of singly ionised silicon, ii, 1100.

phase rule and its application to problems of luminescence and ionisation of gases, ii, 1161.

Saha, *M.*, and *R. K. Swe*, influence of radiation on ionisation equilibrium, ii, 254.

Sahashi, *Y.*, occurrence of dihydroxy-quinolinecarboxylic acid (the β -acid of Suzuki) in rice husks, i, 1520.

Sahli, *H.*, determination of the free acid of gastric juice, i, 458.

Sahlin, *B.*, effect of some potassium salts on succinodehydrogenase, i, 743.

Šahović, *K.*, blood coagulation in cold-blooded animals, i, 716.

- Saillard, E.**, Clerget's method (inversion coefficient of sucrose), i, 1133.
catalysis and the inversion of sucrose by acetic acid, ii, 307.
- Saint, S. J.**, relation between the p_H value, the lime requirement, and the thiocyanate colour of soils, i, 220.
- St. George, A. V.** See **M. A. Ramirez**.
- St. Peter, W. N.** See **H. M. Randall**.
- Saitô, M.** See **Y. Urida**.
- Sakoschanasky, A.**, fluorescent derivative of β -naphthol, i, 1061.
- Sakurai, K.**, re-formation of methæmoglobin. I. Experiments *in vitro*, i, 1199.
- Salabartan, J.** See **E. Aubel**.
- Salant, E. O.**, heat capacity of solid aliphatic crystals, ii, 1042.
- Salauze, J.**, electrolysis of alkali acetates in methyl-alcoholic solution, i, 504.
- Saldau, P.**, equilibrium in the system, gold-zinc, ii, 205.
- Saldau, P. J.**, measurement of electrical conductivity at high temperatures and its significance for explaining the nature of solid solutions, ii, 872.
- Salgue, R.** See **C. Levaditi**.
- Salis, G. von**, first spark spectra of zinc and cadmium, ii, 334.
- Sallick, M. A.** See **F. P. Underhill**.
- Salmon, W. D.**, vitamin-B in the excreta of rats on a diet low in this factor, i, 1516.
- Saloman, T.** See **H. Gault**.
- Saltmarsh, M. O.**, spectra of doubly and trebly ionised phosphorus, ii, 724.
- Salvesen, H. A.**, blood calcium under normal and pathological conditions, i, 713.
- Salzmann, G.** See **K. Hess**.
- Samdahl, B.**, condensation of menthone with *p*-tolualdehyde, i, 414.
- Samec**, hydrolysis of natural and synthetic amylophosphates by enzymes, i, 1504.
chemical properties of colloidal starch derivatives, ii, 1153.
- Samet, J.** See **I. Greenwald**.
- Sammet, K.** See **O. Lemmermann**.
- Samoilov, J. V.**, dehydration of kaolinite, ii, 698.
- Samsoen, M.**, expansion of glasses; boric anhydride, ii, 1051.
- Samter, W.** See **B. Pfyl**.
- Samuel, R.**, ionisation of potassium vapour by light, ii, 459.
- Samysslov, A.** See **A. Bach**.
- Sanarelli, G.**, "intestinal" anthrax, i, 477.
- Sandberg, M.**, and **E. Brand**, papain lipase, i, 1009.
- Sandberg, V.** See **H. von Euler**.
- Sandeman, I.**, secondary spectrum of hydrogen at higher pressures, ii, 909.
- Sander, K.** See **E. Waser**.
- Sander, L.**, "indine," isoindigotin, "hydrindine" and the inner anhydride of $\alpha\beta$ -bis-*o*-aminophenylmalic acid [hydroxydihydroisoindigotin], i, 977.
indigoid dyes, i, 982.
- Sander, P.** See **H. Leuchs**.
- Sandera, K.**, influence of colloidal solutions on the electrocapillarity of mercury, ii, 659.
- Sandera, K.** See also **M. Cikrtová**.
- Sanderson, E. S.** See **P. E. Howe**.
- Sando, C. E.**, anthocyanin formation in *Helianthus annuus*, i, 1026.
- Sandonnini, C.**, certain physico-chemical properties of mixtures of water and acetone, ii, 765.
- Sandoz, M.** See **F. Kehrmann**.
- Sands, C. E.**, isolation and identification of quercetin in apple peels, i, 216.
- Sandstrom, W. M.** See **R. A. Gortner**.
- Sané, S. M.**, and **S. S. Joshi**, behaviour of nitrophenols with *p*-toluenesulphonyl chloride, i, 134.
- Sani, G.**, and **V. Grilli**, conservation and transformation of nitrogen in stable manure, i, 218.
- Sanigar, E. R.**, dropping mercury cathode. VIII. Electrolysis of some complex cyanides, ii, 676.
- Sano, S.**, effect of diffusion on time rate of chemical change, ii, 681.
time rates of vaporisation and chemical changes on surface of contact of two fluids, ii, 681.
- Santi, U.** See **D. Ganassini**.
- Santomauro, P.**, phytochemical reduction of methyl α -chloroethyl ketone, i, 203.
- Sanyal, R. P.**, and **N. R. Dhar**, induction periods in chemical reactions, ii, 136.
- Sanyal, R. P.** See also **N. R. Dhar**.
- Sapper, A.** See **H. Reihlen**.
- Saprikin, S.** See **I. L. Kondakov**.
- Sarkar, N. N.** See **R. N. Sen**.
- Sarkar, P. B.** See **P. Rây**.
- Sarkar, P. V.** See **P. Rây**.
- Sas, F. E. R.**, determination of morphine by conductometric titration with silicotungstic acid, ii, 1011.
- Sasahara, T.**, X-ray analysis of solid solutions of potassium chloride and potassium bromide, ii, 745.
- Sasaki, N.**, dissociation of polyatomic salts. I. and II., ii, 899, 512.
volumetric determination of iodides, ii, 433.

- Sasaki, R.**, metabolism of mineral salts in the animal body. I. Effect of alkali metals on the growth of animals, i, 331.
- Sasaki, R.** See also *S. Sawamura*.
- Saslavsky, I. I.**, dependence of coefficient of expansion of liquids on temperature and chemical structure, ii, 26.
- contraction regularities in the formation of solid chemical compounds, ii, 933.
- Sass, L. von.** See *K. von Auwers*.
- Satanovski, S.**, organic phosphorus and calcium of the blood plasma during the development of callus in fracture, i, 1208.
- Sattler, L.**, improved Fischer vacuum fractionator, ii, 708.
- Sattler, L.**, and *B. R. Mortimer*, distilling flask for corrosive liquids, ii, 589.
- Sauer, E.**, and *E. Kinkel*, determination of the elasticity of gelatin gels, ii, 519.
- Sauerwald, F.**, and *G. Jackwirth*, nature of the martensitic structure [of steel], ii, 22.
- Sauerwald, F.**, and *E. Jaenichen*, force of adhesion between metal surfaces. IV. Synthetic metal structures, ii, 387.
- Sauerwald, F.**, and *Knehan*, relation between the hardness of metals and temperature, ii, 279.
- Saunders, F. A.** See *H. N. Russell*, and *T. Lyman*.
- Saunders, S. W.** See *W. E. Garner*.
- Savaritzki, N.** See *M. Vrevski*.
- Saville, W. B.**, and *G. Shearer*, X-ray investigation of saturated aliphatic ketones, ii, 366.
- Saville, W. B.** See also *Alex Müller*.
- Savino, E.**, effect of insulin on the phosphorus of the blood, i, 482.
- Savron, E.** See *A. Palladin*.
- Sawamura, S.**, and *R. Sasaki*, water-soluble proteins of *Fagopyrum esculentum*, Moench, i, 346.
- Sawyer, R. A.**, and *E. J. Martin*, vacuum spark spectrum of zinc in the region 2100–4000 Å., ii, 1100.
- Saxon, R.**, electrolysis of equimolar mixtures, ii, 984.
- electrolytic separation of alkali and alkaline-earth metals, ii, 984.
- Sayce, L. A.**, and *H. V. A. Briscoe*, method of measuring the dielectric constants of liquids, ii, 263.
- Sbarsky, B.**, and *D. Michlin*, isolation of the perhydriase (Schardinger's enzyme) of milk, i, 472.
- Sbarsky, B.**, and *A. Muchamedoff*, adsorption of protein degradation products by the formed elements of the blood *in vivo* and *in vitro*. IV. Adsorption of certain amino-acids by the red blood-corpuscles, i, 451.
- Sborgi, U.**, double decomposition, $(\text{NH}_4)_2\text{B}_4\text{O}_7 + \text{Na}_2\text{SO}_4 \rightleftharpoons \text{Na}_2\text{B}_4\text{O}_7 + (\text{NH}_4)_2\text{SO}_4$, in aqueous solution. VIII., ii, 207.
- electronic theory of the anodic behaviour of metals, especially those exhibiting passivity phenomena. I. and II., ii, 550.
- Sborgi, U.**, and *E. Bovalini*, double decomposition, $(\text{NH}_4)_2\text{B}_4\text{O}_7 + \text{Na}_2\text{SO}_4 \rightleftharpoons \text{Na}_2\text{B}_4\text{O}_7 + (\text{NH}_4)_2\text{SO}_4$, in aqueous solution. V., ii, 206.
- Sborgi, U.**, *E. Bovalini*, and *M. Medici*, double decomposition, $(\text{NH}_4)_2\text{B}_4\text{O}_7 + \text{Na}_2\text{SO}_4 \rightleftharpoons \text{Na}_2\text{B}_4\text{O}_7 + (\text{NH}_4)_2\text{SO}_4$, in aqueous solution. VI., ii, 207.
- Sborgi, U.**, and *E. Burichetti*, double decomposition, $(\text{NH}_4)_2\text{B}_4\text{O}_7 + \text{Na}_2\text{SO}_4 \rightleftharpoons \text{Na}_2\text{B}_4\text{O}_7 + (\text{NH}_4)_2\text{SO}_4$, in aqueous solution. VII., ii, 207.
- Scagliarini, G.**, additive compounds of stannic iodide and organic bases, i, 890.
- complex derivatives of quinquivalent molybdenum, ii, 891.
- Scagliarini, G.**, and *A. Airoidi*, ter-valent vanadium, i, 920.
- Scagliarini, G.**, and *G. Tartarini*, oxidation of complex sulphites of ter-valent cobalt, ii, 1193.
- Scarborough, H. A.** See *W. I. Jones*, and *H. McCombie*.
- Scarpa, O.**, experiments on the conductivity and ionisation of electrolytes, ii, 128.
- apparatus for physical chemistry laboratories, ii, 150.
- Scarth, G. W.**, elasticity of gelatin in relation to p_{H} and swelling, ii, 862.
- Scatchard, G.**, influence of gelatin on transport numbers, ii, 41.
- activities of strong electrolytes. I. The activity of hydrochloric acid derived from the electromotive force of hydrogen-silver chloride cells, ii, 397.
- activities of strong electrolytes. II. A revision of the activity coefficients of potassium, sodium, and lithium chlorides, and potassium hydroxide, ii, 397.
- activities of strong electrolytes. III. The use of the flowing junction to study the liquid junction potential between dilute hydrochloric acid and saturated potassium chloride solutions; and the revision of some single electrode potentials, ii, 398.

- Scatchard, G.**, activities of strong electrolytes. IV. Application of the Debye-Hückel equation to alcoholic solutions, ii, 971.
- Schaarschmidt, A.**, new process of nitration with the aid of nitrogen oxides from the air or ammonia. I., i, 123. nitrogen peroxide, ii, 227.
- Schaarschmidt, A., H. Balzerkiewicz, and J. Gante**, new process of nitration with the aid of nitrogen oxides from air or ammonia. II., i, 532.
- Schaarschmidt, A., L. Hermann, and B. Szemző**, [behaviour of] aldehydes and ethylene oxide in the Friedel-Crafts synthesis, i, 1278.
- Schaarschmidt, A., and H. Hofmeier**, internal oxidation reactions with additive compounds of nitrogen tetroxide and olefines, i, 877.
- Schaarschmidt, A., C. Mayer-Bugström, and J. Sevón**, new condensation products from anthracene and phenanthrene, i, 241.
- Schaarschmidt, A., and M. Raack**, condensation reactions with nitrosyl chloride, i, 380.
- Schacherl, R.** See *F. Feigl*.
- Schade, H.**, water fixation in colloids, from the medical point of view, ii, 36.
- Schade, W.** See *D. Vorländer*.
- Schäfer, A.**, absorptive power of lipid mixtures, ii, 1149.
- Schaefer, A.** See *W. Diltthey*.
- Schaefer, R., and F. Schmidt**, quinhydrone electrode for clinical p_H determinations, i, 611.
- Schäfer, W.** See *B. Helferich*.
- Schaeffer, B.** See *H. Remy*.
- Schäffner, A.** See *E. Waldschmidt-Leitz*.
- Schalek, E.** See *H. Freundlich*.
- Schaller, W. T.**, sincosite, a new vanadium mineral, ii, 152.
- Schantl, E.**, Goppelsroeder's reaction for aluminium and its application in microchemistry, ii, 440.
- Schaposchnikov, K., and V. S. Fedorov**, mechanics of electrons and light quanta, ii, 1105.
- Scharff, J. W.** See *H. B. Newham*.
- Scharlov, L.** See *M. Vrevski*.
- Schaulin, A.** See *H. Kämmerer*.
- Schaum, K.** [with *W. Naumann, K. Unger, and H. Hoffarth*], changes in state of aggregation and polymorphism. V., ii, 1132.
- Schaum, K., and A. Feller**, activation of chlorine by electric discharge, ii, 90.
- Schaum, K., and P. Friederich**, alleged influence of light on electrophoresis, ii, 220.
- Schaum, K., and M. Funck**, photoelectric and spectrophotometric studies. IV. The influence of temperature on the absorption spectra of borax and phosphate beads, ii, 178.
- Schaum, K., and W. Rörig**, changes in state of aggregation and polymorphism. II. Microscopical study of transition processes, ii, 95.
- Schaum, K., and W. Schleussner**, photochemical potential changes, ii, 985.
- Schechtmann, J.**, variation in the surface tension of solutions as a function of the concentration, ii, 1148.
- Schedler, J. A.** See *F. Kehrman*.
- Scheff, G.**, red pigment obtained by treatment of normal human urine with *p*-dimethylaminobenzaldehyde, i, 855.
- Scheffer, F.**, interactions of quicklime in the soil, i, 624.
- Scheffer, F.** See also *E. Blanck*.
- Scheffer, F. E. C., and (Miss) H. J. de Wijs**, ammonia solutions, ii, 783.
- Scheffler, K.**, Winkler's bromine method of determining the iodine value of fats, ii, 1008.
- Scheibe, G.** [with *G. Rössler, and F. Backenköhler*], mutability of the absorption spectra of non-polar compounds and halochromism of unsaturated ketones. II., ii, 352.
- Scheibler, H.**, isomerisation of *O*-acyl into *C*-acyl compounds under the catalytic influence of noble metals. I., i, 918.
- Scheibler, H., and H. Friese**, mechanism of the Claisen cinnamic ester synthesis, i, 1417.
- Scheibler, H., E. Marbenkel, and D. Bassanoff**, metallic compounds of the enolic forms of carbonyl compounds and their application to syntheses. IV. Reaction between ester-enolates and alkyl or acyl halides, i, 918.
- Scheibler, H., and Otto Schmidt**, metallic compounds of the enolic forms of carbonyl compounds and their application to syntheses. III. Action of carbon monoxide on ketone- and ester-enolates, i, 917.
- Scheibler, H., F. Sotschek, and H. Friese**, [tetrahydrofurfuraldehyde], i, 1298.
- Scheiderer, S.** See *F. L. Hahn*.
- Scheil, E.**, secondary crystallisation of steel, ii, 122.
- Scheinost, E.** See *B. M. Margosches*.
- Scheljakin, O.** See *W. Arzichovski*.
- Scheller, E.** See *F. Konrich*.
- Schelte, F.**, adsorption, ii, 286.

- Schenck, M.**, bile-acids. XII. A calculus from the rennet-sac of a goat. XIII. Presence of deoxycholic (choleic) acid in the hydrolysed bile of the goat, i, 854.
bile-acids. XIV. Occurrence of deoxycholic (choleic) acid in the hydrolysed bile of the sheep, i, 1488.
- Schenck, M.**, and **F. von Graevenitz**, preparation of tetramethylguanidines, i, 377.
- Schenck, R.**, chemical equilibrium between lead sulphide and its roasting products. III., ii, 1160.
- Schenck, R.**, and **W. Borkenstein**, chemical equilibria between lead sulphide and its roasting products. II., ii, 419.
- Schenck, R.**, and **A. Imker**, vapour pressure of germanium hydride, ii, 279.
- Schepmann, W.** See **A. Lehne**.
- Schepp, R.** See **C. G. Schwalbe**.
- Scherer, P. C.** See **R. F. Chambers**.
- Scherer, W.** See **H. Wieland**.
- Scheringa, K.**, deliquescence of salts, ii, 296.
sensitive reaction for copper and bromine, ii, 326.
- Scherpenberg, A. L. van.** See **M. A. H. van den Hout**.
- Scherrer, W.** See **A. Pictet**.
- Schertz, F. M.**, determination of xanthophyll by means of the spectrophotometer and the colorimeter, i, 871.
physical and chemical properties of carotin and preparation of the pure pigment, i, 1024.
properties and preparation of pure xanthophyll, i, 1024.
- Scheuing, G.**, benzilic acid transformation, i, 44.
- Scheuing, G.**, and **A. Hensle**, potassium stilbenediol, i, 27.
- Scheunert, A.**, and **A. J. Candelin**, vitamins. V. Storage of vitamin-A by young white rats after administration of horseflesh to the mother during pregnancy, i, 1515.
- Scheunert, A.**, and **C. Hermersdörfer**, vitamins. IV. Content of vitamins-A and -B in horseflesh, i, 617.
- Schidlöf, A.**, quantum hypothesis and gas theory, ii, 843.
- Schiebold, E.**, hardening phenomena in metals as revealed by X-rays, ii, 186.
- Schierkolk, K.**, infra-red absorption spectrum of ammonia, ii, 180.
- Schill, E.**, and **J. Kunze**, influence of intravenous administration of urea on the non-protein nitrogen of the blood, i, 712.
- Schilt, W.** See **F. Hefti**.
- Schimizu, K.**, excretion of carbon in the urine on a normal and on a deficient dietary, i, 185.
- Schimmel & Co.**, essential oils, i, 417.
- Schlatter, C.** See **T. Batnekas**.
- Schlee, H.**, and **W. Thiessenhusen**, silver-ion concentration in solutions of colloidal and complex silver preparations with special reference to their medicinal use. II., i, 197.
physico-chemical examination of medicinal silver preparations, ii, 114.
- Schleicher, A.**, pseudo-complexes, ii, 22.
- Schleicher, A.**, and **W. Schmitz**, intermediate compound of high molecular weight in the decomposition of $[Pt en_2]_2$ by acids, ii, 704.
- Schleicher, A.**, and **L. Toussaint**, electrometric titration of hypochlorous acid, ii, 433.
electro-analytical precipitation of antimony, ii, 1004.
- Schleicher, A.**, and **W. Wesly**, electrometric titration of chlorous acid and its determination in presence of hypochlorous acid, ii, 433.
- Schlemmer, F.** See **R. Dietzel**.
- Schlesinger, E. F.** See **G. Haas**.
- Schlesinger, N.**, spatial relationships about the copper atom, i, 1249.
- Schliessmann, O.** See **G. F. Hüttig**.
- Schleussner, W.** See **K. Schaum**.
- Schlösing, A. T.**, efficiency of catalysts [in oxidation of ammonia], ii, 566.
determination of nitrous vapours, ii, 599.
- Schlöttig, O.** See **E. Krause**.
- Schlubach, H. H.**, and **K. Maurer**, syntheses of polysaccharides. I. Synthesis of an isotrehalose, i, 888.
- Schlubach, H. H.**, and **G. Rauchalles**, fission of γ -methylfructoside by invertase; configuration of sucrose, i, 1243.
- Schlubach, H. H.**, and **W. Rauchenberger**, syntheses of polysaccharides. II. The galactosidoglucose of E. Fischer and E. F. Armstrong, i, 888.
- Schlubach, H. H.** See also **R. Kuhn**.
- Schlumbohm, H.** See **F. Krollpeiffer**.
- Schlundt, H.**, and **A. F. O. Germann**, dielectric constant of liquid phosgene [carbonyl chloride], ii, 355.
- Schmalfuss, H.**, and **K. Kalle**, condensation of formaldehyde. I. Condensation with magnesium oxide, i, 116.
apparatus for concentrating specially sensitive solutions, ii, 320.

- Schmalfuss, H.**, and **H. Werner**, formation of pigments. III. Fermentative micro-detection of 1- α -amino-3:4-dihydroxyphenylpropionic acid in the presence of tyrosine; connexion between constitution and chromogenic properties, i, 1361.
- extraction apparatus for solid substances at a raised temperature, ii, 234.
- sensitive, qualitative method for the detection of oxygen with pyrogallol and potassium hydroxide, ii, 238.
- apparatus for evaporating under diminished pressure liquids that "bump," ii, 590.
- simple apparatus for extracting liquids with a specifically heavier solvent, ii, 897.
- qualitative test for oxygen, ii, 1198.
- Schmalfuss, H.**, and **M. Wetzlar**, Grignard's reaction in presence of water, i, 395.
- Schmedes, K.**, action of formaldehyde on alkylated methyluracils, i, 435.
- Schmid, E.**, increase of tensile strength and recovery of zinc crystals, ii, 752.
- Schmid, F.** See also **M. Polanyi**, and **P. Rosbaud**.
- Schmid, L.**, methylation of polysaccharides, i, 1386.
- Schmid, L.**, and **B. Bangler**, products of the condensation of 2-aminopyridine with fatty-aromatic ketones. I., i, 1459.
- Schmid, L.**, and **B. Recker**, alkali compounds of carbohydrates, i, 1386.
- cryoscopic determinations of molecular weight in liquid ammonia, i, 1386.
- Schmidt, A.** See **A. Rollett**.
- Schmidt, C. F.** See **K. K. Chen**.
- Schmidt, C. L. A.** See **D. M. Greenberg**.
- Schmidt, D.**, polysaccharide produced by *Aspergillus niger*, i, 868.
- Schmidt, Erich** (Göttingen), absorption spectrum of oxygen in the extreme ultra-violet, ii, 336.
- Schmidt, Erich** (München), and **A. Ascherl**, synthesis of α -hydroxyketones. I., i, 364.
- Schmidt, Erich**, and **W. Bartholomé** [with **R. Asmas**], bromotrinitromethane. III., i, 136.
- Schmidt, Erich, W. Haag**, and **L. Sperling**, incrustive substances of plants. VI., i 1370.
- Schmidt, Erich**, and **G. Malyoth**, incrustive substances of plants. V., i, 213.
- Schmidt, F.** See **R. Schaefer**.
- Schmidt, G.** See **O. Ruff**.
- Schmidt, G. C.**, atomic rays, ii, 251.
- Schmidt, H.**, ripening of photographic emulsions from the point of view of ionic deformation, ii, 810.
- Schmidt, H. W.** See **D. T. Ewing**.
- Schmidt, K.**, compressibility of some organic liquids, ii, 497.
- Schmidt, Otto** (Berlin). See **H. Scheibler**.
- Schmidt, Otto** (Karlsruhe). See **K. Freudenberg**.
- Schmidt, O. T.** See **R. Willstätter**.
- Schmidt, Richard**, mechanism of the reaction in the reduction of titanium tetrachloride with hydrogen and the behaviour of the reduction products in a vacuum, ii, 315.
- Schmidt, Rudolf.** See **H. Meerwein**.
- Schmidt, T.** See **Arthur Simon**.
- Schmidt, W.** See **H. Vollmer**.
- Schmidt, W.** (Marburg). See **K. von Auwers**.
- Schmidt, Werner**, carbon dioxide as a stimulant and a nutrient, i, 758.
- Schmidtman, M.**, determination of hydrogen-ion concentration in tissues and in cells, i, 99.
- Schmieder, F.**, economy coefficients of phosphorescent substances, ii, 931.
- Schmitt, F.** See **H. Franzen**.
- Schmitt-Krahmer, C.**, determination of phosphoric acid in metabolic investigations, i, 613.
- Schmitz, B.**, preparation of the magnesium ammonium phosphate precipitate for the determination of phosphoric acid or of magnesia, ii, 67.
- Schmitz, E.**, calcium content of the growing embryo, i, 456.
- Schmitz, E.**, and **F. Chrometzka**, formation of lactic and phosphoric acids in the [salivary] gland, i, 859.
- Schmitz, W.** See **A. Schleicher**.
- Schmitz-Dumont, O.** See **H. Rheinboldt**.
- Schmoss, I. W.**, action of phosphorus on salts containing oxygen [nickel nitrate], ii, 389.
- Schneider, A.**, paramicrobial method for determining the phenol coefficient of disinfectants, i, 1006.
- Schneider, A.** See also **C. Dhéré**.
- Schneider, K.** See **R. Willstätter**.
- Schneider, W.**, heat of transformation of martensite, ii, 95.

- Schneider, Walter.** See *H. Wieland*.
Schnell, B. See *K. Ziegler*.
Schnider, O. See *P. Karrer*.
Schniderschitsch, N. See *F. X. Erben*.
Schnücke, R., phosphorus metabolism of certain moulds, particularly *Aspergillus niger*, i, 204.
Schob. See *Schumann*.
Schoder, F. See *W. Küster*.
Schöbl, O., semiselective antiseptic effect of the vapours of vegetable oils, essential oils, their constituents, and similar compounds, i, 1006.
Schoeler, A. See *J. Gadamer*.
Schöller, R. See *A. Klemenc*.
Schoeller, W. R. See *A. R. Powell*.
Schön, M. See *W. Pauli*.
Schoen, R. See *C. Levaditi*.
Schönberg, A. [benzilic acid transformation], i, 254.
Schönberg, A. [with *R. Abelsdorff, B. Antonoff, and H. Kirchrath*], valency. II. Decomposition of organic substances, i, 557.
Schönberg, A. [with *H. Krüll*], preparation of dioxanthylen from xanthion, i, 149.
Schönberg, A. [with *A. Rosenbach, H. Krüll, and U. Ostwald*], organic compounds of sulphur. III. Thio-ketones, i, 1300.
Schoenemann, K. See *D. Vorländer*.
Schönfeld, R. See *A. Fodor*.
Schoenmaker, P. See *A. Smits*.
Schoenówna, J. See *K. Dzielonński*.
Schoep, A., dumontite, a new radioactive mineral, ii, 64.
 crystal structure, chemical analysis, and dehydration of becquerelite and schoepite, ii, 235.
 sklodowskite, a new uranium mineral and its relation to uranotile, ii, 235.
 chemical composition of fourmarierite, ii, 236.
 buttenbachite, a new mineral, ii, 1196.
Schöpf, C. See *H. Wieland*.
Schoepfle, C. S., preparation of tri-arylmethyl acetates, i, 811.
Schöppach, A. See *W. Elle*.
Schörnig, L. See *J. von Braun*.
Schofield, F. H., thermal and electrical conductivities of some pure metals, ii, 273.
Schofield, R. K., and E. K. Rideal, kinetic theory of surface films. I. Surfaces of solutions, ii, 960.
Schollenberger, C. J., calomel electrodes, ii, 711.
Schollenberger, C. J. See also *J. W. Ames*.
Scholz, E. See *F. Arndt*.
Schonland, E. F. J., absorption of cathode rays in aluminium, ii, 459.
Schoorl, N., structure of benzene, i, 894.
 dehydrating power of salts, ii, 400.
 determination of invert-sugar in presence of sucrose and development of invert-sugar in sucrose solutions, ii, 445.
 determination of invert-sugar in presence of sucrose, ii, 828.
Schopflocher, P. See *R. Pummerer*.
Schorger, A. W., seed hairs of the milkweed, i, 872.
Schorigin, P., transformations of benzyl ethers. II., i, 1404.
Schott, W. See *E. Heuser*.
Schottky, W. [theory of the diffusion of positive and negative ions to the walls of a discharge tube], ii, 79.
Schou, S. A. See *H. B. Rasmussen*.
Schramme, A. See *A. Windaus*.
Schreckental, G. See *R. Seka*.
Schreinemakers, F. A. H., in-, uni-, and multi-variant equilibria. XXVII. and XXVIII., ii, 124, 402.
 equilibria in systems in which the phases are separated by a semi-permeable membrane. I.—X., ii, 399, 538, 869, 975, 1062, 1063.
 in-, uni-, and multi-variant equilibria. XXIX. Influence of one or more new substances on an equilibrium in which a phase reaction may occur, ii, 975.
Schreinemakers, F. A. H., G. Berkhoff, and K. Posthumus, system, cupric nitrate-ammonium nitrate-water, ii, 123.
Schreiner, E., determination of the molecular thermal conductivity and the molecular heat of diatomic gases at low temperatures, ii, 97.
 thermodynamics of quinhedrone electrodes; chemical constants of hydrogen, ii, 978.
Schriever, H. See *E. Wöhlisch*.
Schrödinger, E., hydrogen-like spectra from the point of view of the polarisability of the atom-core, ii, 722.
 statistical definition of entropy of an ideal gas, ii, 951.
Schroedter, E. See *D. Vorländer*.
Schroer, E., benzene ring problem, i, 379.
Schroeter, G. [with *A. Glusckes, E. van Hulle, and S. Götzky*], hydrogenation of anthracene, i, 127.

- Schroeter, G.** [with *E. van Hulle*, and *H. Müller*], hydrogenation of phenanthrene, i, 130.
- Schroeter, G.** [with *E. van Hulle*, *A. Glusckke*, *G. Stier*, and *H. Müller*], chemistry of syntheses and degradations by means of aluminium chloride, i, 125.
- Schroeter, G.** [with *F. Zadek*, and *J. Hoffmann*], transformations of 5-tetralone [1-keto-1:2:3:4-tetrahydronaphthalene], i, 677.
- Schroth, A.** See *A. Klemenc*.
- Schrutka, W.** See *L. Kofler*.
- Schryver, S. B., H. W. Buston, and D. H. Mukherjee**, isolation of a product of hydrolysis of the proteins hitherto undescribed, i, 794.
- Schryver, S. B.** See also *H. L. Kingston*, *J. Knaggs*, and *F. W. Norris*.
- Schtschodro, N.**, changes in the conductivity of coloured films on bleaching, ii, 1134.
- Schtschukarev, S.**, periodic classification of the elements from the point of view of the study of isotopes, ii, 462.
- Schtschukina, M.** See *A. Stepanov*.
- Schuch, A.** See *Erich Müller*.
- Schükarev, A.**, magneto-chemical phenomena, ii, 47, 264.
- Schüler, H.**, fine structures in the first lithium spark spectrum, ii, 339.
- Schüler, H., and K. L. Wolf**, dispersion constants and critical electron velocities of molecular hydrogen, ii, 1118.
- Schumann, and Schob**, determination of small quantities of magnesium in copper-zinc alloys, ii, 902.
- Schüssler, H.** See *S. Goldschmidt*.
- Schueter, H.** See *M. Trautz*.
- Schütz, E.** See *E. Wöhlisch*.
- Schütz, L.** See *L. Taub*.
- Schütz, W.**, calc spar lenses for intense polarised light, ii, 706.
- Schütz, W.** See also *W. Gerlach*.
- Schuhecker, K.**, blood-sugar of the goat, i, 715.
- Schulek, E.**, Prussian-blue reaction, ii, 71.
determination of sulphide, polysulphide, and thiosulphate sulphur in solutions of alkali and alkaline-earth sulphides, ii, 327.
detection and determination of chloride, bromide, and thiocyanate in the presence of cyanide, ii, 432.
determination of formaldehyde, ii, 606.
detection and determination of chloride, bromide, and thiocyanate in the presence of cyanide, ii, 712.
- Schulek, E.**, determination of iodide, ii, 712.
determination of hypiodite and iodate, hypobromite and bromate, and bromate and sodate in the presence of each other, ii, 1197.
- Schuler, H., and K. L. Wolf**, continuous hydrogen spectrum, ii, 829.
- Schuler, K.** See *G. Weissenberger*.
- Schulhof, K.** See *L. Hektoen*.
- Schulmann, R.** See *M. Loeper*.
- Schultz, G., and K. L. Ganguly**, chemical action of light on the polynitrotoluenes, i, 647.
- Schultz, G.** See also *R. Anschütz*.
- Schultze, C.** See *T. Sabalitschka*.
- Schultze, G.** See *K. Hess*.
- Schultze, H.** See *F. Krollpfeiffer*.
- Schultze, K.**, capillarity, evaporation, and efflorescence, ii, 287.
capillarity and wetting, ii, 856.
- Schulz, H.** See *G. Jander*.
- Schulz, L.** See *F. Eisenlohr*.
- Schulz, O. F.** See *F. Sommer*.
- Schulz, R. G.**, distribution of surface-active substances between water and organic solvents, ii, 956.
- Schulz, W.** See *R. J. Meyer*.
- Schulze, F.** See *H. Gilman*.
- Schulze, F. A.**, ratio of specific heats for liquids, ii, 491.
- Schulze, Heinrich, and Gottfried Berger**, aconite alkaloids; new alkaloid from *Aconitum napellus*, i, 282.
- Schulze, Herbert.** See *Wolfgang Ostwald*.
- Schulze, R.** See *F. Mayer*.
- Schumacher, J.**, chemistry of the action of salvarsan *in vitro* and *in vivo*, i, 733.
action of ter- and quinquivalent arsenic preparations, i, 733.
- Schumann, R.**, free energy and heat content of tellurium dioxide and of amorphous and metallic tellurium; reduction potential of tellurium, ii, 670.
- Schumm, O.**, formation of porphyrin from blood pigment. II., i, 88.
transformation of pigments in putrefying flesh, i, 341, 721.
porphyrins, i, 846.
natural hæmatin-like pigments and their related porphyrins, i, 854.
conversion products of the pigments of flesh and blood. IV. Production of porphyrins in flesh. V. Hæmochromogens and hæmatins derived from putrefied flesh and blood, and the related porphyrins, i, 1347.
- Schuster, F.**, theory of state of matter. I. Internal pressure, vapour pressure, and critical data, ii, 951.

- Schuster, *F.*, theory of state of matter. II. Internal pressure, co-volume, and association, ii, 1142.
- Schuster, *F.* See also *G. Weissenberger*.
- Schwab, *E.* See *E. Abderhalden*.
- Schwab, *G. M.*, ozone, ii, 149.
- Schwab, *G. M.*, and *G. Hanke*, solubility of chlorine in carbon tetrachloride, ii, 190.
- Schwab, *G. M.*, and *S. Loeb*, formation of nitric oxide by purely electrical means, ii, 150.
- Schwaibold, *J.* See *F. Kieferle*.
- Schwalbe, *C. G.*, determination of α -cellulose, ii, 720, 1209.
- Schwalbe, *C. G.*, and *G. A. Feldtmann*, occurrence of d -glycuronic acid in vegetable fibres, i, 1238.
- Schwalbe, *C. G.*, and *R. Schepp*, hydrolysis of solutions of magnesium chloride, i, 1045.
- Schwalbe, *C. G.*, and *G. Teschner*, adsorption and swelling of cellulose fibres, i, 889.
- Schwalbe, *H.*, determination of lignin, i, 643.
- Schwarte, *G.* See *A. Windaus*.
- Schwartz, *A.* See *L. Fournier*.
- Schwarz, *F.*, metachromatic staining of plant cell-walls with substantive dyes. I, and II, i, 755.
- Schwarz, *R.*, and *T. Hoefler*, mechanism of silane formation. II, ii, 418.
- Schwarz, *R.*, and *E. Menner*, silicic acids. II., ii, 222.
- Schwarz, *R.*, and *R. Walcker*, origin of natural aluminium hydrosilicates, ii, 887.
- Schwarz, *R.*, and *H. Weiss*, photochemistry of complex compounds. I, ii, 576.
- Schwarz, *R.* See also *F. Arndt*.
- Schwarzkopf, *E.* See *A. Windaus*.
- Schweikert, *G.* See *L. Grunmach*.
- Schweitzer, *G. G.* See *F. F. Nord*.
- Schweizer, *J.* See *W. H. Arisz*.
- Schweizer, *K.* See *T. von Fellenberg*.
- Scortecchi, *A.* See *N. Parravano*.
- Scott, *A.* See *J. W. Mellor*.
- Scott, *A. F.*, relationship between atomic numbers and the properties of ions in the crystal lattice, ii, 369.
- Scott, *D. A.*, action of trypsin on insulin, i, 870.
- Scott, *D. A.*, and *C. H. Best*, preparation of insulin, i, 617.
- sugar of the blood, i, 1343.
- Scott, *J. W.* See *J. B. Collip*.
- Scott, *N. D.*, and *T. Svedberg*, measurements of the mobility of egg-albumin at different acidities, ii, 204.
- Scott, *W. O.* See *W. E. Lawson*.
- Scott, *W. W.*, determination of lead in minute quantity, ii, 903.
- inexpensive method for determining lead, ii, 903.
- Scott-Blair, *G. W.*, periodic precipitation in dilute gelatin gels, ii, 519.
- Scottish Dyes, Ltd. See *E. G. Beckett*.
- Scremin, *L.*, chemical condition of circulating lead, i, 465.
- Sčukarev, *S.* See *P. Lukirsky*.
- Sehrbundt, *K.* See *R. Kunz*.
- Sears, *F. W.* See *F. G. Keyes*.
- Sears, *G. W.*, and *L. Quill*, fusion of rare-metal ores. I. Pyrosulphate fusion of titanium ores, ii, 580.
- Sedgwick, *W. G.* See *W. H. Perkin*, *jun.*
- Sedström, *E.*, gold-copper alloys, ii, 104.
- Sedström, *E.* See also *S. Holgersson*.
- Seekles, *L.*, refractivity of o -phthalaldehydic acid, i, 31.
- Seekles, *L.* See also *B. Sjollema*.
- Seelen, *D. von*, electrical conductivity of rock salt crystal, ii, 185.
- Seeliger, *R.*, cooling of hot bodies in gases and liquids, ii, 492.
- Seeliger, *R.*, and *W. Lindow*, spectrophotometric studies of the glow discharge, ii, 739.
- Seeliger, *R.*, and *J. Ōkubo*, [intensity and distribution of] light emission from the striated discharge, ii, 79.
- Segitz, *F. A.* See *F. Hein*.
- Seguin, *L.* See *M. Francois*.
- Seibert, *F. B.*, and *E. R. Long*, interfering effect of glycerol on the biuret reaction, i, 1110.
- Seide, *O.*, action of sodamide on 3-methylpyridine, i, 72.
- attempted preparation of 1:8-naphthridine derivatives, i, 72.
- constitution of " α -quinoquinolone," i, 159.
- constitution of the 4-phenyl-1:8-naphthrid-2-one of Palazzo and Tamburini; tautomerism of 2-aminopyridine, i, 437.
- 2-amino-3-methylpyridine, i, 1328.
- Seidel, *C. F.* See *L. Ruzicka*.
- Seiden, *R.*, influence of different external factors on the ash-content of plants, i, 1518.
- Seidenberg, *S.* See *P. Rona*.
- Seifert, *F.*, preparation of 1-alkylcyclohexan-3-ones, i, 407.
- Seifert, *W.* See *A. Lottermoser*.
- Seifriz, *W.*, emulsions. I. Hydrocarbon oil emulsions. II. Effect of electrolytes on petroleum oil emulsions, ii, 663.

- Seifriz, *W.*, emulsions. III. Double reversal by the same electrolyte. IV. Multiple systems. V. Stabilisation membrane, ii, 779.
- emulsions. VI. Effect of acidity on type and reversibility. VII. Effect of phase ratio and handling on type. VIII. Comparison of vegetable oils with petroleum oils, ii, 864.
- Seisov, *K.* See *M. Popov*.
- Seith, *W.*, effect of capillary-active substances on the surface tension of salt solutions; its relation to ionic hydration, ii, 961.
- Seitz, *F.* See *E. Waldschmidt-Leitz*, and *R. Willstätter*.
- Seitz, *W.*, asymmetric emission of electrons by X-rays. I. and II., ii, 168, 1034.
- Seka, *R.*, heterocyclic ring systems. I. and II., i, 57, 1298.
- substituted indole derivatives. II., i, 67.
- 8-aminoquinoline and its derivatives, i, 587.
- Seka, *R.*, and *G. Schreckental*, pyrid-anthrone synthesis, i, 1316.
- Seka, *R.* See also *E. Philippi*, and *E. Späth*.
- Selim, *M.* See *D. Holde*.
- Sélincourt, *M. de*, effect of temperature on the anomalous reflexion of silver, ii, 275.
- Selivanov, *A.* See *S. S. Nametkin*.
- Seljakov, *N.*, röntgenographic measurement of absolute dimensions of a single crystal in bodies of fine crystalline structure, ii, 270.
- Seljakov, *N.*, and *A. Krasnikov*, new *KB*, doublet of the elements manganese and chromium, ii, 914.
- Seljakov, *N.*, *L. Strutinski*, and *A. Krasnikov*, structure of glass, ii, 849.
- Selke, *W.* See *D. Vorländer*.
- Sellner, *E.* See *H. Lüers*.
- Semencov, *A.* See *E. Grischkevitch-Trochimovski*.
- Semenov, *N.*, evaluation of the magnetic moment of atoms, ii, 618.
- Sementschenko, *W.*, theory of binary electrolytes, ii, 117.
- Semeria, *G. B.*, configuration of Δ^{α} -oleic acid, i, 5.
- Semmens, *E. S.* See *E. C. C. Baly*.
- Semon, *W. L.*, and *V. R. Damerell*, preparation of dimethylglyoxime, i, 1039.
- Sen, *H. K.*, biochemical transformation of *as*-dichloroacetone into optically active α -dichloropropan- β -ol, i, 203.
- reduction of *aa*-dichloroacetone by yeast, i, 337.
- Sen, *H. K.*, and *C. Barat*, reduction of *s*-dichloroacetone by yeast, i, 1241.
- Sen, *J. N.*, and *T. P. Ghose*, vasicine; an alkaloid present in *Adhatoda vasica*, Nees, i, 958.
- Sen, *K. C.*, stability of colloidal solutions. III. Coagulation of copper ferrocyanide sol, ii, 664.
- theory of peptisation and protective effect of colloids and non-electrolytes, ii, 666.
- Sen, *K. C.*, and *M. R. Mehrotra*, stability of colloidal solutions. II. Stability of colloidal solutions of chromium hydroxide and copper ferrocyanide in presence of stabilising ions and coagulation of the colloids by mixtures of electrolytes, ii, 665.
- Sen, *N.* See *M. von Laue*.
- Sen, *R. N.*, and *N. N. Sarkar*, condensation of primary alcohols with resorcinol and other hydroxy aromatic compounds, i, 812.
- Sen, *R. N.*, *N. N. Sinha*, and *N. N. Sarkar*, condensations of chloroform, carbon tetrachloride, and iodoform with resorcinol and similar other hydroxy aromatic compounds, i, 916.
- Sen, *R. N.*, and *S. S. G. Sircar*, condensation of resorcinol and other hydroxy aromatic compounds with some acids, esters, lactones, and lactams, i, 554.
- Senderens, *J. B.*, preparation of ethers, i, 113.
- preparation of cyclohexenols by catalytic dehydration of cyclohexanediols, i, 537.
- Sendroy, *J.*, *jun.* See *A. B. Hastings*.
- Senftleben, *H.*, action of radiation on gas mixtures, ii, 883.
- Seng, *M. I.* See *D. W. MacKenzie*.
- Senter, *G.*, and *A. M. Ward*, Walden inversion. VIII. Influence of the solvent on the sign of the product in the conversion of β -hydroxy- β -phenylpropionic acids into β -bromo- β -phenylpropionic acids, i, 31.
- Walden inversion. IX. Influence of the solvent on the sign of the product in the conversion of β -bromo- β -phenylpropionic acids into β -hydroxy- β -phenylpropionamides, i, 1128.
- Serebrijski, *J.* See *H. Vollmer*.
- Serono, *C.*, *E. Trocello*, and *A. Cruto*, physiological action of insulin, i, 208.
- Sessions, *W. V.* See *C. A. Kraus*.
- Seth, *T. N.*, activation of pancreatic juice by enterokinase, i, 202.

- Seth, T. N.**, and **J. M. Luck**, relation between the metabolism and the specific dynamic action of amino-acids, i, 1002.
- Seth, T. N.** See also **J. M. Luck**.
- Seuffert, R. W.**, **T. Ito**, and **T. Yokoyama**, nitrogen, sulphur, and "formol" nitrogen on feeding amino-acids, i, 730.
- Seuffert, R. W.**, and **E. Marks**, influence of amino-acids on the decomposition of proteins, i, 730.
- Sève, P.**, optical properties of calamine, ii, 18.
- Seyer, W.** See **D. H. Bangham**.
- Sevon, J.** See **A. Schaarschmidt**.
- Sevringhaus, E. L.**, and **M. E. Smith**, pancreatic response to carbohydrate ingestion, i, 727.
- Sextl, T.**, influence of occluded gas on the electrical resistance of a wire, ii, 642.
electric charges carried by individual microscopic particles, ii, 832.
- Seyer, W. F.**, and **A. F. Gill**, mutual solubility of sulphur dioxide and *n*-hexane, ii, 504.
- Seyer, W. F.**, and **J. L. Hugget**, mutual solubilities of cetene (hexadecene) and liquid sulphur dioxide, ii, 504.
- Seyewetz, A.** See **A. Lumière**.
- Shadduck, H. A.** See **D. T. Ewing**.
- Shaffer, I. W.**, effect of hydrogen-ion concentration on the precipitation of colloidal benzoïn and gold solutions by cerebrospinal fluid, i, 326.
- Shaffer, S.** See **H. F. Lewis**.
- Shannon, E. V.**, and **E. S. Larsen**, merrillite and chlorapatite in stony meteorites, ii, 321.
- Shannon, M. J.** See **H. Ryan**.
- Shapiro, C. V.** See **W. R. Orndorff**.
- Shark, T. M.** See **T. A. Henry**.
- Sharma, R. K.**, spontaneous combustion of ethylene during the preparation of ethylene dichloride, i, 109.
- Sharp, J. F.** See **E. J. Bowen**.
- Sharp, P. F.**, wheat and flour studies.
III. Amino-nitrogen content of the immature wheat kernel and the effect of freezing, i, 622.
- Sharp, T. M.** See **Wellcome Foundation, Ltd.**
- Sharp & Dohme, Inc.**, and **A. R. L. Dohme**, preparation of alkylresorcinols and aralkylresorcinols, i, 541.
preparation of alkylresorcinols, i, 809.
- Sharpe, J. S.**, determination of guanidines in urine as picrates, i, 722.
- Sharples, E. H.** See **L. G. Radcliffe**.
- Shaver, W. W.**, extreme ultra-violet spectra of the alkali metals, ii, 451.
- Shaver, W. W.**, electrodeless discharge in the vapours of phosphorus and sulphur, ii, 471.
- Shaver, W. W.** See also **J. C. McLennan**.
- Shaw, B. D.**, 2:6-distyrylpyridine and its derivatives, i, 68.
fission of the pyridine nucleus during reduction. II. Preparation of glutardialdoxime, i, 299.
- Shaw, P. E.** See **H. W. Gilbert**.
- Shaw, T. P. G.**, heat of formation of acetaldol, ii, 644.
- Shaw, W. M.** See **W. H. MacIntyre**.
- Shaw, W. S.**, application of the "formol titration" to the Kjeldahl method of nitrogen determination, ii, 66.
- Shaw, W. S.** See also **D. R. Nanji**.
- Shaxby, J. H.**, X-ray analysis of mother-of-pearl, ii, 93.
- Shearer, G.**, X-ray investigation of the crystalline nature of china clays, etc., ii, 698.
distribution of intensity in the X-ray spectra of certain long-chain organic compounds, ii, 938.
- Shearer, G.** See also **W. B. Saville**.
- Sheasby, A. D.** See **G. T. Morgan**.
- Sheely, C.** See **A. E. Wood**.
- Shelley, H. J.** See **G. M. Goodwin**.
- Shelton, E. M.**, and **T. B. Johnson**, proteins. VII. Preparation of the protein "sericin" from silk, i, 602.
- Shenstone, A. G.**, low-voltage arc spectra of copper, ii, 77.
arc spectra of silver and copper, ii, 453.
analysis of the arc spectrum of copper, ii, 1014.
- Sheppard, A. B.** See **E. E. Turner**.
- Sheppard, S. E.**, photographic gelatin, ii, 966.
plasticity in relation to gelatin, ii, 1058.
apparently anomalous protection against oxidation, ii, 1084.
- Sheppard, S. E.**, and **E. K. Carver**, plasticity in relation to cellulose and cellulose derivatives, ii, 1058.
- Sher, B.** See **M. S. Kharasch**.
- Sherman, H. C.**, and **L. C. Boynton**, quantitative experiments on the occurrence and distribution of vitamin-A in the body, and the influence of the food, i, 1018.
- Sherman, H. C.**, **M. E. Caldwell**, and **N. M. Naylor**, influence of tryptophan and other amino-acids on the stability and enzymic activity of pancreatic amylase, i, 1007.
- Sherman, H. C.**, and **F. L. MacLeod**, calcium content of the body in relation to age, growth, and food, i, 1001.

- Sherman, H. C., and F. L. MacLeod, relation of vitamin-A to growth, reproduction, and longevity, i, 1019.
- Sherman, H. C., and A. T. Merrill, cystine in the nutrition of the growing rat, i, 730.
- Sherman, H. C., and H. E. Munsell, determination of vitamin-A, i, 1018.
- Sherman, H. C., and L. B. Storms, bodily store of vitamin-A as influenced by age and other conditions, i, 1019.
- Sherman, L. P. See J. W. E. Glattfield.
- Sherman, M. S. See E. W. Guernsey.
- Sherrill, M. L., reaction of bromonitromethane with aromatic compounds in the presence of aluminium chloride, i, 237.
- Sherwin, C. P. See L. R. Cerecedo, and A. R. Rose.
- Sherwood, T. K., solubilities of sulphur dioxide and ammonia in water, ii, 852.
- Shibata, K., depolymerisation of proteins and re-synthesis of protein-like substances from the fission products, i, 1109.
- Shidei, J., composition of a precipitated aluminium hydroxide, ii, 1185.
- Shikata, M., electrolysis of nitrobenzene with the mercury dropping cathode. I. Reduction potential of nitrobenzene. II. Influence of the cathodic potential on the adsorption of nitrobenzene, ii, 304.
- Shikata, M. See also J. Heyrovský, and Z. Kontníková.
- Shilling, W. G. See J. R. Partington.
- Shimo, K., synthesis of *p*-hydroxyphenylglycine, i, 1423.
- Shimomura, A., action of acid anhydrides on benzidine, i, 981.
- Shimura, K., deposition, separation, and reabsorption of hæmoglobin in the organism and their relation to the deposition of iron pigment, i, 1342.
- Shinoda, G., metabolism in avitaminosis, i, 610.
- Shinoda, G. See also T. Brugsch.
- Shinoda, J. See R. Robinson.
- Shinoda, O. See S. Kato.
- Shiple, G. J. See A. R. Rose.
- Shipley, J. W., I. R. McHaffie, and N. D. Clare, corrosion of iron in absence of oxygen, ii, 688.
- Shipley, P. G. See E. V. McCollum.
- Shiver, H. E. See G. Edgar.
- Shmook, A., formation of the pyrrole ring by the action of ammonia on carbohydrates, i, 577.
- Shoesmith, J. B., and J. Haldane, condensation of diphenylformamidide with phenols. II. General nature of the reaction, i, 39.
- Shoesmith, J. B., and R. H. Slater, polarity effects in the isomeric ω -bromoxylens and isomeric iodo-toluenes, i, 16.
- reduction of anethole nitrosochloride by stannous chloride and hydrochloric acid, i, 908.
- Shohan, J. B. See W. G. Christiansen.
- Short, K., and W. F. Short, polymerisation of formaldehyde in presence of inorganic substances, i, 232.
- Short, W. F., condensation of phenylethylamine with *s*-dichlorodimethyl ether, i, 387.
- Short, W. F. See also K. Short.
- Shorter, S. A., thermodynamics of water absorption by textile materials, ii, 789.
- Shorter, S. A., and W. J. Hall, hygroscopic capacity of wool in different forms and its dependence on atmospheric humidity and other factors, ii, 782.
- Shriner, R. L. See J. W. Kern.
- Shrivastava, D. L., R. S. Gupta, M. Prasad, and S. S. Bhatnagar, chemical theory of the protective action of sugars. II, ii, 293.
- Shrivastava, D. L. See also S. S. Bhatnagar, and M. Prasad.
- Shrum, G. M. See J. C. McLennan.
- Shukla, P. P. See M. O. Forster.
- Shukov, I., and S. A. Stschoukarev, distribution of hydrogen ions between gelatin and water, ii, 386.
- Shumaker, J. B. See H. Gilman.
- Shutt, F. T., influence of grain growing on the nitrogen and organic matter content of the western prairie soils of Canada, i, 768.
- Shutt, W. J. See T. A. Heppenstall.
- Sickel, H. See E. Abderhalden.
- Sidener, C. F. See A. E. Stoppel.
- Sideris, C. P., effect of hydrogen-ion concentration on the extracellular pectinase of *Fusarium cromyoph-thorum*, i, 1117.
- rôle of hydrogen-ion concentration on the development of pigment in *Fusaria*, i, 1363.
- Sidgwick, N. V., structure of the enolic forms of β -keto-esters and β -diketones, i, 630.
- behaviour of the simple halides with water, ii, 102.
- Sidgwick, N. V., and E. K. Ewbank, measurement of vapour pressures of aqueous salt solutions by depression of the freezing point of nitrobenzene, ii, 38.
- hydration of salts and their effect on the vapour pressure of water, ii, 38.

- Sidgwick, N. V.**, and **S. G. P. Plant**, co-ordinated compounds of the alkali metals, i, 298.
- Siebe, P.**, action of iron on copper at high temperatures, ii, 317.
- Siebel, G.** See **G. Tammann**.
- Sieber, R.**, action of dilute acids on wood cellulose, i, 519.
- Siebler, G.** See **E. Rupp**.
- Siedentopf, H.**, form of ultramicros, ii, 637.
- Siedich, A. S.**, bacterial decomposition of starch, i, 1510.
- Siedschlag, E.**, ternary system, chromium-nickel-molybdenum, ii, 298.
- Sieg, H.** See **A. Sonn**.
- Siegbahn, M.**, spectroscopic evidence of *J*-transformation of *X*-rays, ii, 727.
- Siegbahn, M.** See also **E. Bäcklin**, and **E. Hjalmar**.
- Siegler, E. H.**, and **C. H. Popenoe**, some insecticidal properties of the fatty acid series, i, 489.
- Sieglitz, A.**, and **H. Koch**, dibenzohomopyran, i, 278.
- Sierakowski, S.**, mechanism of alterations in the hydrogen-ion concentration of bacterial cultures, i, 204.
- Sierakowski, S.**, and **R. Zajdel**, rôle of carbon dioxide in bacterial cultures, i, 338.
- Sieverts, A.**, transformation velocity of ammonium nitrate, ii, 558.
- Sieverts, A.**, and **E. Roell**, absorption of hydrogen by cerium, lanthanum "mischmetall," and cerium-magnesium alloys, ii, 854.
- Sigmund, W.**, influence of the end-products of metabolism on plants. IV. Influence of nitrogen-free end-products of plant metabolism (resins, colouring matters) on the germination of seeds, i, 344.
- Silbermann, H.** See **F. Zetzsche**.
- Silberrad, C. A.** See **O. Silberrad**.
- Silberrad, O.**, photochemical action of iodine on moist *p*-chlorotoluene, i, 16.
- Silberrad, O.**, and **C. A. Silberrad**, selenium as chloride carrier, ii, 1191.
- Silberrad, O.**, **C. A. Silberrad**, and **B. Parke**, sulphuryl chloride. III. Influence of catalysts on the chlorination of toluene, i, 1137.
- Silfversvärd, B.** See **E. Kylin**.
- Silmann, S. H.** See **H. Fringsheim**.
- Silverman, A.** See **G. D. Kammer**.
- Simek, A.**, and (*Miss*) **H. Kadlcova**, electrokinetic phenomenon; electrocapillarity of fused tellurium dioxide, ii, 678.
- Simington, R. M.** See **H. Adkins**.
- Simmonds, N.** See **E. V. McCollum**.
- Simms, H. S.** See **P. A. Levene**.
- Simon, Alexander**, action of bismuth on the red blood-corpuscle, i, 1500.
- Simon, Arthur**, and **T. Schmidt**, hydrated ferric oxide and iron oxides, ii, 534.
- Simon, A. W.** See **A. H. Compton**.
- Simon, E.** See **C. Neuberg**.
- Simon, F.**, electrical conductivity of metals, ii, 94.
chemical constants of monatomic gases, ii, 98.
- Simon, L. J.**, structure of monobasic unsaturated acids and their behaviour on oxidation with sulphuric-chromic acid, i, 505.
relation between structure and the sulphochromic oxidation, i, 511.
chromic acid oxidation and molecular structure; tariric and stearolic acid derivatives, i, 778.
neutralisation of chloric acid by alkalis studied by viscosity measurements, ii, 288.
conditions for applying the argento-sulphochromic method in determining carbon, ii, 436.
viscosimetric neutralisation of monobasic acids by alkalis; comparison of alkali chlorates and bromates with nitrates, ii, 512.
- Simon, L. J.**, and **A. J. A. Guillaumin**, derivatives of tetra-acetylmucic acid, i, 116.
- Simon, L. J.**, and **V. Hasenfratz**, *l*-arabonolactone and some of its derivatives, i, 511.
- Simon, R. H.** See **J. W. Ames**.
- Simon, W.** See **H. Stobbe**.
- Simonis, H.** See **A. Löwenbein**.
- Simonet, H.** See **H. Pénaud**.
- Simons, L.**, *X*-ray emission of electrons from metal films, with special reference to the region of the absorption limit, ii, 81.
- Simonsen, J. L.**, constituents of some Indian essential oils. XIV. Essential oil from the seeds of *Zanthoxylum ovalifolium*, i, 565.
constituents of some Indian essential oils. XV. Essential oil from the seeds of *Juniperus communis*, i, 565.
constituents of some Indian essential oils. XIII. Essential oil from a new species of *Andropogon* occurring in the Etawah District, U.P., i, 1164.
- Simonsen, J. L.** See also **L. A. P. Anderson**, **C. S. Gibson**, and **M. G. Rau**.
- Simpson, C.** See **L. Higginbotham**.

- Simpson, G. E.**, urinary excretion of tartrates following administration to animals, i, 1211.
- Simpson, T. P.** See *H. J. Lucas*.
- Sims, H. des B.**, preparation and purification of bios. I., i, 1017.
- Singer, R.** See *K. Hess*.
- Singh, B. K.**, phototropism in solution. II. Optical activity as an aid to the study of phototropy, ii, 195.
- Singh, M.**, and *R. Singh*, carboxy-camphoranilic acids, i, 1276.
- Singh, R.** See *M. Singh*.
- Sinha, N. N.** See *R. N. Sen*.
- Sinozaki, H.** See *R. Hara*.
- Sircar, A. C.**, and *P. C. Dutt*, dyes derived from phenanthraquinone. V. Phenanthraphenazinazines, i, 593.
- Sircar, A. C.**, and *B. K. S. Gupta*, dyes derived from phenanthraquinone. VI. Phenanthraquinone-phenyl azomethines and phenanthraphenazine azo dyes, i, 983.
- Sircar, A. C.**, and *N. C. G. Ray*, reaction between aromatic aldehydes and phenanthraquinone in presence of ammonia, i, 980.
- Sircar, S. S. G.** See *R. N. Sen*.
- Sirk, H.**, calculation of molecular diameters from heat of vaporisation and surface tension data, ii, 184.
- molecular diameters, ii, 364.
- Sisco, F. T.**, and *M. R. Whitmore*, properties and structure of some alloys of aluminium and chromium, ii, 1051.
- Sisson, W. E.** See *H. J. Stander*.
- Sitsen, M. H. P.**, colorimetric determination of acetone in urine, i, 855.
- Sittenberger-Kraft, A.** See *E. Freund*.
- Sittig, L.** See *E. Friederich*.
- Sjöberg, K.**, Pringsheim's "amylase complement," i, 1504.
- Sjöberg, K.**, and *E. Eriksson*, amylase, i, 736.
- Sjollem, B.**, and *L. Seekles*, condensation of dihydroxyacetone and of methylglyoxal with thiocarbamide, i, 1175.
- Skanavy-Grigorjeva, M.** See *L. A. Tschugaev*.
- Skene, M.**, and *G. L. Stuart*, acidity produced in salt solutions by sphagnum, i, 765.
- Skinner, D. G.** See *G. T. Morgan*.
- Skinner, G. S.** See *V. Voorhees*.
- Skinner, H. W. B.**, relative absorbing powers of the *L*-levels for radiation of varying wave-length, ii, 5.
- Skinner, H. W. B.** See also *P. Kapitza*.
- Skinner, J. J.** See *F. E. Allison*.
- Skita, A.** [with *K. Warnat*, and *H. Reitmeyer*], nuclear hydrogenation of aromatic and heterocyclic compounds with colloidal platinum as catalyst, i, 140.
- Skobeltzyn, D.**, recoil effect in scattering of γ -rays, ii, 257.
- effective wave-length of γ -rays, ii, 835.
- Skrabal, A.**, and *M. Baltadschieva*, rate of hydrolysis of ethyl ortho-carbonate, ii, 139.
- Skrabal, A.**, and *A. Matievic*, dynamics of the malonic ester equilibrium, ii, 36.
- Skrabal, A.**, *F. Pfaff*, and *H. Airoidi*, hydrolysis of esters of ketonic acids, ii, 139.
- Skraup, S.**, and *K. Poller*, benzene substitution. I. Indirect substitution, i, 143.
- Slansky, P.**, catalysis of linseed oil oxidation. I., i, 114.
- catalysis of linseed oil oxidation. II. Theory of the mechanism of catalysis, i, 115.
- Slater, J. C.**, quantum theory of optical phenomena, ii, 478.
- methods for determining transition probabilities from line absorption ii, 734.
- nature of radiation, ii, 926.
- Slater, J. C.** See also *G. R. Harrison*.
- Slater, R. H.** See *J. B. Shoesmith*.
- Slater, W. K.**, metabolic processes in *Ascaris lumbricoides*, i, 1208.
- Slattery, M. K.**, crystal structure of tellurium and selenium and of strontium and barium selenides, ii, 369.
- Slawiński, K.**, structure of dicyclic terpenes, i, 48.
- Sligh, T. S.**, automatic control of low temperatures, ii, 756.
- Sligh, T. S.** See also *N. S. Osborne*.
- Sligh, T. S., jun.** See *N. S. Osborne*.
- Sloan, A. W.** See *J. B. Conant*.
- Sloan, C. H.** See *J. Kendall*.
- Slobodska-Zaykovska, N.**, use of the milk-agar of Freudenreich in the investigation of lactic acid bacteria, i, 1510.
- Slooten, J. van.** See *P. Karrer*.
- Slosse, A.** See *P. Mendeléev*.
- Slotta, K. H.**, oxidation of uric acid glycols, i, 1189.
- Slotta, K. H.**, and *L. Lorenz*, carbimides. I. Preparation of aliphatic carbimides, i, 1047.
- Sluyters, A.** See *E. Laqueur*.
- Sly, C.** See *C. S. Hamilton*.
- Slyke, D. D. Van.** See *A. Hiller*.
- Small, J. O.**, viscosity of cotton cellulose, ii, 499.
- Small, L. F.** See *J. B. Conant*.

- Smeechel.** See *D. Keller.*
- Smedley, S. P.** See *J. F. King.*
- Smedt, J. de,** diffraction of *X*-rays by polymerised liquids, i, 6.
- Smedt, J. de,** and *W. M. Keesom,* structure of solid nitrous oxide and carbon dioxide, ii, 484.
- Smekal, A.,** quantum theory of radioactive process. II., ii, 347.
"meta-stationary" atomic and molecular states, ii, 1022.
- Smiles, S.** See *C. M. Bere, D. T. Gibson, C. J. Miller,* and *R. F. Twist.*
- Smillie, W. G.,** and *S. B. Pessoa,* anthelmintic properties of the constituents of the oil of *Chenopodium*, i, 194.
- Smirnov, A. J.,** rôle of the mineral constituents in plants. II. Influence of neutral salts on peroxidase, i, 486.
- Smirnov, A. P.** See *P. Karrer.*
- Smirnov, V. A.** See *N. D. Zelinski.*
- Smith, A. H.,** a protein of the orange, i, 619.
- Smith, A. W.,** latent heat determinations, ii, 756.
- Smith, C. C.** See (*Miss*) *M. J. Field.*
- Smith, C. P.,** and *C. T. Zahn,* dielectric constants of ethane, ethylene, acetylene, and butylene, and the symmetry of unsaturated bonds, ii, 1118.
- Smith, D. F.,** rate of thermal decomposition of sulphuryl chloride; a first-order homogeneous gas reaction, ii, 876.
- Smith, D. F.** See also *G. N. Lewis,* and *R. F. Mehl.*
- Smith, E. R.,** moving boundaries and the phase rule, ii, 399.
- Smith, E. R.,** and *D. A. MacInnes,* transport numbers by the moving-boundary method. IV. Transport numbers of some chloride solutions, ii, 542.
- Smith, F. E.** See *A. T. Larson,* and *C. S. Marvel.*
- Smith, G. F.,** separation and determination of the alkali metals, using perchloric acid. I. Solubilities of the perchlorates of the alkali metals in mixed organic solvents, ii, 436.
- Smith, G. F.,** and *J. F. Ross,* separation and determination of the alkali metals, using perchloric acid. II. Precise determination of the insoluble alkali metal perchlorates, ii, 437.
separation and determination of the alkali metals, using perchloric acid. III. *n*-Butyl alcohol and ethyl acetate as mixed solvents in the separation and determination of potassium, sodium, and lithium, ii, 601.
- Smith, H. F.,** combustion of carbon. III., ii, 1085.
- Smith, H. F.,** and *W. C. Ebaugh,* combustion of carbon. I., ii, 888.
- Smith, H. G.,** fine structure of band spectra of sodium, potassium, and sodium-potassium vapours, ii, 86.
spiral springs of quartz, ii, 818.
- Smith, H. H.** See *E. M. Hume.*
- Smith, I. A.** See *A. McKenzie.*
- Smith, J.** See *H. G. Rule.*
- Smith, J. C.,** micro-determination of methoxyl, ii, 905.
- Smith, J. D. M.,** tridentate groups in complexes of tetrahedral and octahedral symmetry, ii, 841.
distribution of electrons in atoms, ii, 1023.
- Smith, J. D. M.** See also *G. T. Morgan.*
- Smith, J. E.,** spark photography as a means of measuring rate of explosion, ii, 804.
- Smith, J. H.,** molecular symmetry in crystal structure, ii, 271.
- Smith, L. E.** See *H. Gilman.*
- Smith, L. F.** See *G. A. R. Kon.*
- Smith, L. I.,** action of certain reagents on ozone, ii, 890.
laboratory ozoniser yielding high concentrations of ozone, ii, 896.
- Smith, L. L.** See *L. A. Congdon.*
- Smith, M. E.** See *E. L. Sevringhaus.*
- Smith, M. I.,** and *W. T. McGlosky,* bio-assay of pituitary extracts; action of the standard infundibular powder on the secretion of urine, i, 207.
dialysis of the physiologically active constituents of the infundibulum, i, 207.
- Smith, R. C.,** physical state of catalysts, ii, 1072.
- Smith, R. G.,** decay of the xylem of the apple caused by *Polystictus versicolor*, Fr., i, 1226.
- Smith, R. G.** See also *A. Hunter.*
- Smith, S.,** electrically exploded wires, ii, 1017.
- Smith, S.** See also *R. J. Lang.*
- Smith, T. O.** See *H. R. Kraybill.*
- Smits, A.,** influence of intensive drying on internal change. II., ii, 116.
electromotive behaviour of aluminium. I., ii, 130.
composition of simple substances as revealed by intensive drying, ii, 268.
influence of intensive drying on inner equilibrium, ii, 532.
electromotive behaviour of magnesium, ii, 544.
electrical overvoltage, ii, 547.

- Smits, A., and H. Gerding**, electromotive behaviour of aluminium. II., ii, 794.
- Smits, A., H. Gerding, and (Miss) R. Kroon**, potentials of metals against pure water, ii, 795.
- Smits, A., and A. J. Rutgers**, complexity of the solid state. II. Behaviour of phosphorus pentoxide. I., ii, 268.
- Smits, A., and P. Schoenmaker**, complexity of the solid state. I. Behaviour of pure sulphur trioxide. I., ii, 267.
- Smits, A., and G. Wallach**, pyrophoric phenomenon in iron, ii, 276.
- Smolczyk, E.** See **F. Auerbach**.
- Smolenski, K.**, acetic acid as a hydrolysis product of pectin, i, 216.
- Smolik, L.**, displacement of aluminium by potassium ions in different soils, i, 1032.
- hydrogen peroxide catalase of marsh soils, i, 1524.
- Smorodincev, I. A., and (Mlle.) A. N. Adova**, influence of some quinine preparations on the fermentation processes of the organism. III. Effect of some compounds of quinine and urea on α -proteases, i, 335.
- standards for the colorimetric determination of trypsin, i, 473.
- limits of precipitability of gelatin by tannin. I., i, 847.
- Smrz, J.**, dropping mercury cathode. IX. Tin, ii, 677.
- Smyth, C. P.**, refraction and electron constraint in ions and molecules, ii, 843, 1019.
- electric moments of the molecules of monocarboxylic acids and their esters, ii, 846.
- Smyth, H. D.**, primary and secondary products of ionisation in hydrogen, ii, 459.
- Smythe, W. R.** See **J. A. Becker**.
- Snapper, J., A. Grünbaum, and S. Sturkop**, oxidation of benzyl alcohol and benzyl esters in the human organism, i, 467.
- Snedker, S. J. C.**, mechanism of the formation of thiocarbanilide, i, 385.
- Snellgrove, D. R.** See **J. Kenyon**.
- Snow, H. R.** See **M. Gomberg**.
- Snyder, E. F.** See **W. C. Holmes**.
- Soames, K. M.**, growth-promoting and anti-rachitic value of cod-liver oil when injected intraperitoneally, i, 210.
- Soames, K. M.** See also **R. Robison**.
- Société Anonyme des Matières Colorantes et Produits Chimiques de St. Denis, A. R. Wahl, and R. Lantz**, new derivatives of naphthoquinone, i, 413.
- Société Chimique des Usines du Rhône**, preparation of *o*-*o*-dihydroxyphenylethanolmethylamine hydrochloride, i, 136.
- Society of Chemical Industry in Basle**, preparation of intermediate products [triazines], i, 441.
- preparation of aryl 4-hydroxynaphthyl ketones, i, 558.
- preparation of asymmetrically acylated derivatives of ethylenediamine and their *N*- and *C*-substituted compounds, i, 1133.
- preparation of anthracene-2-thioglycol-3-carboxylic acid, i, 1150.
- alkyl esters of α -dialkylaminomethyl- α -alkylacetoacetic acid, i, 1249.
- anthraquinone- and anthracene-oxythionaphthens, i, 1312.
- Sobotka, H.**, dried yeast, i, 865.
- Sobotka, H.** See also **P. A. Levene**.
- Soden, H. von**, essential oils obtained by extracting fresh flowers with volatile solvents (essential flower-extract oils). II., i, 1123.
- Soderman, M. A., and T. B. Johnson**, utilisation of *p*-toluidine in the synthesis of aromatic esters of the novocaine type, i, 814.
- Söderbäck, E.**, action of free thiocyanogen on unsaturated compounds, i, 899.
- Sönksen, J.** See **O. Mumm**.
- Soep, L.**, surface tension crystal *v.* saturated solution; the concentration cell: finely divided salt | supersaturated solution | saturated solution | large crystals, ii, 1046.
- Sörensen, M.**, determination of small quantities of phosphorus in proteins, ii, 900.
- Sörensen, M., and S. P. L. Sörensen**, proteins. VII. Coagulation of proteins by heating, ii, 518.
- Sörensen, S. P. L.**, solubility of proteins, i, 602.
- proteins. VIII. Solubility of the serum-globulins, i, 1110.
- Sörensen, S. P. L.** See also **M. Sörensen**.
- Sörensen, T.** See **C. N. Riiber**.
- Sokhey, S. S.** See **C. H. Fiske**.
- Solaja, B.**, gravimetric determination of aluminium and its separation from manganese by the use of "infusible white precipitate," ii, 602.
- Solari, A. A.**, chemical composition of normal and luetic sera, i, 858.
- Solé, A.** See **A. Fröhlich**.
- Sollman, T.** See **R. L. Howard**.
- Solnijeva, A. E.** See **A. A. Kalushski**.
- Solomon, I.** See **P. Pagniez**.

- Somazzi, S.**, rapid determination of the acid value of oils, ii, 828.
- Somerville, R.** See *T. S. Patterson*.
- Someya, K.**, selective determination of vanadium in presence of iron and chromium. I. Determination of vanadium in presence of iron, ii, 161.
use of liquid amalgams in volumetric analysis. II. Determination of tungsten, etc., by means of lead and bismuth amalgams, ii, 904.
use of liquid amalgams in volumetric analysis. III. Determination of phosphorus by means of lead amalgam, ii, 1200.
- Sommelet, M.**, diphenylmethane series; benzhydryltrimethylammonium bromide, i, 247.
synthesis of homologues of benzyl chloride, i, 803.
- Sommer, F., O. F. Schulz, and M. Nassau**, amidopulphuric acid [hydroxylamineisomonosulphonic acid], ii, 939.
- Sommer, L. A.**, spark spectrum of caesium, ii, 4.
- Sommer, L. A.** See also *K. Bechert*.
- Sommerfeld, A.**, theory of the periodic system, ii, 177.
quantum theory and the Bohr atom, ii, 835.
- Sommerfeld, A., and H. Hönl**, intensity of multiplet lines, ii, 468.
- Sommermeier, E.** See *F. Krollpfeiffer*.
- Sonn, A.** [with *Ernst Müller, W. Bülow, and W. Meyer*], syntheses with 3:4:5-trimethoxybenzaldehyde, i, 932.
- Sonn, A., and W. Bülow**, tautomerism of derivatives of phloroglucinol; monomethyl derivatives of phloracetophenone, i, 1267.
- Sonn, A., E. Hotes, and H. Sieg**, synthetic experiments in the glyoxaline group, i, 157.
- Sonn, A., and W. Meyer**, conversion of trimethylgallic acid into trimethylgallaldehyde [3:4:5-trimethoxybenzaldehyde], i, 931.
- Sonn, A., and E. Patschke**, preparation of *Bz*-hydroxycoumarone compounds, i, 282.
substitution in the benzene nucleus; varying influence of certain alkoxy groups on the synthesis of aldehydes by means of hydrocyanic acid, i, 1279.
- Sonn, A., and W. Rosinsky**, configuration of the malic acids, i, 1237.
- Sonnenschein, L.** See *R. Weiss*.
- Soper, F. G.**, hydrolysis of acylchloramines in water, i, 381.
- Soper, F. G.**, ionisation constant of hypochlorous acid, ii, 37.
- Sorensen, A. J.**, magnetic properties of thin films of ferromagnetic metals produced by the evaporation method, ii, 82.
- Sorg, K.**, lipoids in the testes of cattle, i, 457.
- Sorrels, J. H.** See *W. M. Walker*.
- Sosman, R. B., and E. Posnjak**, artificial and natural ferromagnetic ferric oxide, ii, 944.
- Sossiedov, L.** See *A. V. Blagoveschenski*.
- Sotschek, F.** See *H. Scheibler*.
- Sottery, C. T.** See *L. P. Hammett, and J. M. Nelson*.
- Soule, B. A.**, detection and determination of nickel by means of α -furyldioxime, ii, 603.
- Southgate, H. W.**, effect of fermentation on the water-soluble vitamin content of [beer] wort, i, 209.
effect of alcohol, under varying conditions of diet, on man and animals, with some observations on the fate of alcohol in the body, i, 1503.
effect of high temperatures on the accessory food factor content of cod-liver oil, i, 1515.
- Spacu, G.**, detection of copper, ii, 1003.
separation of copper and mercury, ii, 1004.
separation of iron from mercury, ii, 1206.
- Spängler, T.** See *T. H. Faust*.
- Späth, E.**, synthesis of ψ -ephedrine, i, 291.
- Späth, E., and E. Bernhauer**, laudanine, i, 294.
- Späth, E., and O. Brunner**, constitution of physostigmine [eserine], i, 574.
- Späth, E., and A. Dobrowsky**, alkaloids of *Corydalis cava*; corybulbine and isocorybulbine, i, 1085.
- Späth, E., and R. Duschinsky**, alkaloids of the calumba root. III. Constitution of columbamine and jatrorrhizine, i, 1313.
- Späth, E., and G. Koller**, synthesis of ψ -ephedrine, i, 1086.
new synthesis of ricinine. IV., i, 1446.
- Späth, E., and E. Kunz**, jaborandi alkaloids. I. Pilocarpidine, i, 575.
- Späth, E., and E. Mosettig**, corydalis alkaloids. V. Constitution of corypalmine, i, 1447.
- Späth, E., and R. Seka**, constitution of tryptopine, i, 1093.

- Späth, E.**, and **W. Stroh**, calycanthine, i, 1447.
- Speakman, H. B.**, biochemistry of acetone formation from sugars by *Bacillus acetothyllicum*, i, 1013.
- Speakman, J. B.**, wool as an amphoteric colloid. II. Chemical theory of dyeing, ii, 515.
- Speakman, J. B.**, and **A. E. Battye**, anomalous adsorption of dyes by wool and cotton, ii, 284.
- Speer, W.** See **H. Lecher**.
- Spegazzini, C. E.** See **C. A. Sagastume**.
- Speidel, P. E.** See **P. Rona**.
- Speight, E. A.**, **A. Stevenson**, and **J. F. Thorpe**, influence of substituents on the formation of derivatives of 1-hydrindone from β -phenylpropionic acids, i, 32.
- Spek, J. van der.** See **R. M. Barnette**, and **D. J. Hissink**.
- Spence, B. J.**, vibration-rotation spectrum of gaseous ammonia at 3μ , ii, 350.
- Spencer, D. A.**, action of bromine on sodium and silver azides, ii, 416.
- Spencer, E.**, albite and other authigenic minerals in limestone from Bengal, ii, 1092.
- Spencer, G. C.** See **W. D. Collins**, and **R. M. Hann**.
- Spencer, L.** See **H. F. Coward**.
- Spencer, R. C.** See **F. K. Richtmyer**.
- Spengler, J. G. F. van**, determination of urobilin in urine and faeces; rôle of the liver in excretion of urobilin, i, 1351.
- Spengler, W.** See **C. Bülow**.
- Sperfelf, F.** See **F. Groebbs**.
- Sperling, L.** See **Erich Schmidt**.
- Speyer, E.**, and **K. Koulén**, α -methylmorphimethine and its isomerides, i, 59.
- Speyer, E.**, and **H. Rosenfeld**, preparation of monobromo- and monochloro-codeine and their behaviour on catalytic reduction, i, 961.
action of thionyl chloride on codeine and its isomerides, i, 961.
action of sodium hyposulphite on bromocodeinone, i, 961.
dihydrothebenine and its degradation, i, 961.
action of cyanogen bromide on thebaine, i, 962.
- Spielemeyer, G.** See **G. Heller**.
- Spiers, C. H.**, and **J. F. Thorpe**, influence of valency direction on the dissociation constants of dibasic acids, ii, 395.
- Spiers, C. W.** See **M. Nierenstein**.
- Spilker, G.** See **R. Fricke**.
- Spinka, J.**, effect of ultra-violet radiations on accessory food factors. I. Vitamin-A. II. Vitamin-B. III. Vitamin-C. IV. Vitamin-D., i, 212.
- Spirescu, (Mlle.) E.** See **A. Ionescu**.
- Spitalsky, E.**, and **N. Petin**, catalysis of hydrogen peroxide by iron salts, ii, 53.
- Spitzin, V. I.**, reduction of tungstates, ii, 1191.
- Sponer, H.**, spectral series of lead and tin, ii, 454.
- Sponsler, O. L.**, X-ray diffraction patterns from plant fibres, ii, 844.
- Spoon, W.**, occurrence of quebrachitol and sugar in *Hevea* latex under various conditions, i, 621.
- Spooner, T.**, effect of a superposed alternating field on apparent magnetic permeability and hysteresis loss, ii, 487.
- Sporing, P. A.**, equilibrium across a parchment membrane in the case of sodium chloride in presence of sodium caseinate, ii, 119.
- Spreckels, E.** See **D. Vorländer**.
- Springer, J. W.**, electrolytic determination of zinc [in the presence of copper], ii, 241.
- Sprock, G.** See **B. Helferich**.
- Spuij, M. J. van der**, determination of the phosphorus requirements of soils, i, 1524.
- Squires, B. T.** See **H. W. Kinnersley**.
- Srikantia, C.** See **M. G. S. Rao**.
- Stadnichenko, T.** See **H. S. Roberts**.
- Stadnikov, G.**, vapour pressure-water content diagrams and adsorption power of aniline black, ii, 771.
- Stadnikov, G.**, and **N. N. Gavrilov**, technical preparation of colloidal ferric hydroxide solutions, ii, 861.
- Stählinger, W.** See **R. Kunz**.
- Stärkle, M.**, formation of methyl ketones during the oxidative degradation of triglycerides and fatty acids by moulds with reference to the rancidity of coconut oil. I. Significance of methyl ketones in butter rancidity. II. Occurrence and significance of methyl ketones as odoriferous substances in Roquefort cheese, i, 205.
- Staesche, M.** See **G. Grube**.
- Stafford, J.** See **D. H. Bangham**.
- Stahn, R.** See **W. Traube**.
- Stallmann, O.** See **K. Brand**.
- Stalony-Dabrowski, J.**, scintillations in zinc sulphide, ii, 1027.
- Stamm, A. J.**, determination of the distribution of size of particles in emulsions, ii, 1153.

- Stamm, A. J.**, and **T. Svedberg**, use of scattered light in the determination of the distribution of size of particles in emulsions, ii, 774.
- Stamm, A. J.** See also **E. O. Kraemer**.
- Stamm, J.**, phenolphthalin as a reagent for hydrocyanic acid, ii, 75.
- fluorescein as a reagent for hydrocyanic acid, ii, 76.
- Stammreich, H.**, proof of the formation of gold from mercury, ii, 1208.
- Standenath, F.**, effect of lecithin, cholesterol, and cholesterol derivatives on tryptic digestion, i, 473.
- Standenath, F.** See also **H. Pfeiffer**.
- Stander, H. J.**, **E. E. Duncan**, and **W. E. Sisson**, toxæmias of pregnancy, i, 1492.
- Stanford, R. V.**, and **A. H. M. Wheatley**, determination of calcium in blood, i, 1199.
- determination of phosphorus compounds in blood, i, 1200.
- distribution of phosphorus compounds in blood, i, 1200.
- Stanley, E.** See **F. L. Pyman**.
- Stanley, H. M.** See **G. T. Morgan**.
- Stanoyévitch, L.** See **F. Kehrmann**.
- Stapelfeldt, F.** See **H. Freundlich**.
- Starcevska, (Mlle.) H.** See **W. Swientoslawski**.
- Starkenstein, E.**, dependence of diuresis on the salt content and hydrogen-ion concentration of the water ingested, i, 327.
- Starkey, R. L.**, physiology of *Thiobacillus thio-oxidans*, an autotrophic bacterium oxidising sulphur under acid conditions, i, 1015.
- carbon and nitrogen nutrition of *Thiobacillus thio-oxidans*, i, 1015.
- Starkweather, H. W.** See **G. P. Baxter**.
- Starling, E. H.**, and **E. B. Verney**, secretion of urine as studied on the isolated kidney, i, 458.
- Starling, E. H.** See also **F. Eichholtz**.
- Starlinger, W.**, and **K. Hartl**, determination of fibrinogen. III., i, 716.
- Stary, Z.**, brominated keratin and hydroxykeratin. II., i, 847.
- Stary, Z.**, and **I. Andratschke**, scleroproteins, i, 1480.
- Starzevska, M.**, influence of asparagine and ammonium nitrate on the nitrogen metabolism of ruminants, i, 1115.
- effect of administration of sodium nitrate on the alkalinity of the urine of a ruminant, i, 1355.
- Starzevska, M.** See also **F. Rogozinski**.
- Stas, J.**, reducing action of organo-magnesium compounds, i, 1052.
- Stasiak, A.**, action of santonin on blood-sugar, i, 1501.
- Stassfurth, T.** See **G. Tammann**.
- Stather, F.** See **M. Bergmann**.
- Staub, M.** See **P. Karrer**.
- Staudinger, H.**, highly polymerised compounds. V. Constitution of the polyoxymethylenes and other highly polymerised substances, i, 362.
- autoxidation of organic compounds. V. Constitution of ozonides, i, 897.
- autoxidation of organic compounds. III. Autoxidation of *as*-diphenylethylene, i, 898.
- explosions with alkali metals, ii, 1181.
- Staudinger, H.** [with **F. Felix**, **E. Geiger**, **H. Harder**, **P. Meyer**, and **E. Stirnemann**], ketens. L. Additive and polymerisation reactions of dimethylketen. I. New compounds of dimethylketen and carbon dioxide, i, 786.
- Staudinger, H.**, **K. Dyckerhoff**, **H. W. Klever**, and **L. Ruzicka**, autoxidation of organic compounds. IV. Autoxidation of ketens, i, 933.
- Staudinger, H.**, and **W. Kreis**, experiments with a hot and cold quartz tube, ii, 316.
- Staudinger, H.**, and **M. Lüthy**, highly polymerised compounds. III. Constitution of the polyoxymethylenes, i, 360.
- highly polymerised compounds. IV. Tri- and tetra-oxymethylenes, i, 361.
- Staudt, W.**, preparation of sarcosine ester, i, 1133.
- Steacie, E. W. R.**, and **F. M. G. Johnson**, viscosities of the liquid halogens, ii, 376.
- Stearn, A. E.** See **E. W. Stearn**.
- Stearn, E. W.**, and **A. E. Stearn**, chemical mechanism of bacterial behaviour. I. Factors controlling the gram reaction. II. Theory of the gram reaction. III. Bacteriostasis, i, 339.
- chemical differentiation of bacteria, i, 1013.
- Stedman, Edgar**, and **G. Barger**, physostigmine [eserine]. III., i, 292.
- Stedman, Edgar.** See also (*Mrs.*) **Ellen Stedman**.
- Stedman, (Mrs.) Ellen**, and **Edgar Stedman**, hæmocyanin. I. Dissociation curves of the oxyhæmocyanin in the blood of some decapod Crustacea, i, 1199.

- Steenbock, H.**, and **A. Black**, fat-soluble vitamins. XXIII. Induction of growth-promoting and calcifying properties in fats by exposure to light, i, 1020.
- Steenbock, H.**, and **M. T. Nelson**, fat-soluble vitamins. XIX. Induction of calcifying properties in a rickets-producing ration by radiant energy, i, 107.
- Steenbock, H.**, **M. T. Nelson**, and **A. Black**, fat-soluble vitamins. XX. Modified technique for determination of vitamin-A, i, 107.
- Steenbock, H.** See also **E. B. Hart**, **E. M. Honeywell**, and **E. M. Nelson**.
- Steenhauer, A. J.** See **L. van Itallie**.
- Stehle, R. L.**, **W. Bourne**, and **E. Lozinsky**, pharmacological action of ethylene oxide, i, 333.
- Steigerwald, C.** See **S. Goldschmidt**.
- Steigmann, A.**, precipitation of gold and silver by metallic sulphides; [detection of traces of gold and silver in solution], ii, 719.
- Stein, H.** See **K. Brand**.
- Steiner, A.** See **W. Ostwald**.
- Steinert, H. E.** See **M. C. Crew**.
- Steinheil, M.** See **O. Hönigschmid**.
- Steinherz, R.** See **F. Eisenkolb**.
- Steinkopf, W.** [valency problem of sulphur], i, 657.
- Steinkopf, W.** [with **E. Zemisch**, **H. Winkler**, and **G. Pohl**], derivatives of *m*- and *o*-dicrosol [dehydroxyditolyl], i, 1413.
- Steinkopf, W.**, and **R. Bessaritsch**, molecular compounds of iodoform and quaternary salts. II., i, 495.
- Steinkopf, W.**, **W. Ohse**, and **K. Buchheim**, laboratory apparatus, ii, 590.
- Steinwehr, H. von.** See **W. Jaeger**.
- Stelling, O.**, chemical constitution and *K* absorption spectra. II. Investigation of certain compounds of phosphorus, ii, 935.
- chemical constitution and *K* absorption spectra. III. Röntgenspectroscopic method of determination of constitution, ii, 935.
- chemical constitution and *K* absorption spectra. IV. Constitution of phosphorous acid and some derivatives, ii, 936.
- Stenzl, H.**, alkaloids of *Lobelia inflata*, i, 347.
- Steepoe, A.**, mechanism of the Liesegang phenomenon, ii, 1158.
- Stepanov, A.**, **N. Preobraschenski**, and **M. Schtschukina**, products of the bromination of paracetaldehyde, i, 1240.
- Stepanov, N. I.**, relation between the temperature and velocity of transformation of metastable non-variant systems, ii, 645.
- Stephen, H.**, synthesis of aldehydes, i, 1131.
- Stephen, H.** See also **E. Chapman**, and **J. T. Marsh**.
- Stephens, O. C.**, preparation of ethyl cyanoacetate, i, 121.
- Stephenson, G. E.** See **H. V. A. Briscoe**, and **P. L. Robinson**.
- Stephenson, M.** See **J. H. Quastel**.
- Stephenson, R. J.** See **J. A. Crowther**.
- Stepp, W.**, formation of vitamin-A during germination of seeds, i, 1220.
- formation of vitamin-D in germinating seeds, i, 1221.
- Steppuhn, O.**, and **G. Pewsner**, extraction of *Adonis vernalis*, i, 762.
- Steppuhn, O.**, and **X. Utkin-Ljubovzov**, autolysis. III. Autolytic processes in liver pulp, i, 864.
- Šterba-Boehm, J.**, and **M. Auerspergrová**, quadrivalent lead, ii, 699.
- Sterba-Boehm, J.**, and **V. Matula**, volumetric determination of cerium, ii, 716.
- Stern, H.** See **W. D. Treadwell**.
- Stern, O.**, equilibrium between matter and radiation, ii, 926.
- transformation of atoms into radiation, ii, 1021.
- Stern, R.**, uric acid. I., ii, 34.
- uric acid. II. Hydropertic action of uric acid, ii, 196.
- supersaturated solutions of uric acid, ii, 504.
- uric acid. III. Nature of the hydropertic supersaturated solution of uric acid, ii, 1152.
- Sternner-Rainer, L.**, compound AuCu in gold alloys, ii, 651.
- Stetter, G.**, determination of mass of H-particles, ii, 1021.
- Steubing, W.**, simple demonstration screen for ultra-violet radiations, ii, 449.
- continuous spectra of the halogens, ii, 452.
- electromagnetic susceptibility of the iodine atom; change of intensity in the line spectrum, ii, 830.
- Stevens, H. C.**, and **E. Karrer**, non-polarisable electrodes for physiological purposes, ii, 1194.
- Stevens, T. S.** See **J. S. Buck**.
- Stevenson, A.** See **E. Rothstein**, and **E. A. Speight**.
- Stewart, A. W.** See **W. H. McVicker**.

- Stewart, C. P.**, metabolism of arginine and histidine. I. Arginine and histidine as precursors of purines, i, 730.
- Stewart, C. P.**, and **W. Archibald**, determination of phosphorus and magnesium, ii, 824.
- Stewart, C. P.**, and **H. E. Tunnicliffe**, glutathione; synthesis, i, 795.
- Stewart, C. P.**, and **A. C. White**, determination of fat in blood, i, 1485.
- Stewart, G. R.**, **E. C. Thomas**, and **J. Horner**, comparative growth of pineapple plants with ammonium and nitrate nitrogen, i, 1366.
- Stewart, H. J.**, oxygen and carbon dioxide contents of arterial and venous blood in dogs, i, 451.
- Stewart, (Miss) J.**, α -acenaphthaquinoline, i, 975.
- Stewart, J. Q.**, treatment of radiation-pressure and gas-pressure as due to intermolecular forces, ii, 1112.
- Stewart, L.** See **R. N. Pease**.
- Stewart, T. D.**, and **S. Maeser**, strength of trimethylamine oxide and trimethylalkoxyammonium hydroxides as bases; structure of ammonium compounds, i, 12.
- Steyns, M. E. J. M.** See **H. Zwaardemaker**.
- Stiasny, E.**, influence of neutral salts on some properties of gelatin, ii, 524.
- Stiasny, E.**, and **S. R. D. Gupta**, effect of neutral salts on gelatin. III. Influence on the action of trypsin on gelatin, i, 707.
effect of neutral salts on gelatin. I. Swelling action of neutral salts and the value of the Hofmeister series, ii, 392.
- Stiasny, E.**, **S. R. D. Gupta**, and **P. Tresser**, effect of neutral salts on gelatin. II. Their dispersive effect, ii, 393.
- Stichel, A.** See **J. Gadamer**.
- Stickel, F.** See **H. T. Bucherer**.
- Stiegler, H. W.** See **W. L. Lewis**.
- Stieglitz, J.**, theory of colour production, ii, 840.
- Stier, G.** See **G. Schroeter**.
- Stiles, H. R.**, **W. H. Peterson**, and **E. B. Fred**, fermentation products of mannitol-forming bacteria, i, 1216.
- Stiles, H. R.** See also **E. B. Fred**, and **W. H. Peterson**.
- Stiles, W.**, absorption of salts by storage tissues, ii, 31.
- Stimson, H. F.** See **N. S. Osborne**.
- Stirnemann, E.** See **H. Staudinger**.
- Stix, W.**, product with insulin action, i, 1218.
- Stobbe, H.**, and **E. Färber**, polymerides of indene, i, 19.
- Stobbe, H.**, **E. Färber**, and **F. Rau**, photodimerides of derivatives of γ -ketopentadienes, i, 1282.
- Stobbe, H.**, **A. Hensel**, and **W. Simon**, polymerisation of cinnamylidenemalonie acid, cinnamylideneacetic acid, cinnamylideneacetylacetone, and cinnamylideneacetone on exposure to light, i, 1067.
- Stobbe, H.**, and **F. Kuhrmann**, two photodimerides of α -phenylcinnamylideneacetoneitrile, i, 253.
- Stock, A.**, fat-free, mercury valve with porous glass plates, ii, 1195.
- Stock, A.**, **A. Brandt**, and **Hans Fischer**, zinc arc as a means of reduction, ii, 570.
- Stock, A.**, and **E. Pohland**, tensimetric determination of molecular weight with liquid ammonia as solvent, ii, 489.
- Stock, A.**, **P. Praetorius**, and **O. Priess**, preparation of beryllium, ii, 1090.
- Stock, A.**, and **W. Wustrow**, thermal decomposition of carbonyl chloride, ii, 987.
- Stock, H.**, action of light on silver bromide, ii, 574.
- Stockdale, D.**, α -phase boundary in the copper-tin system, ii, 973.
- Stocker, E.** See **F. Fichter**.
- Stocks, H. B.**, and **C. V. Greenwood**, nature of the reaction between tannin and carbohydrates. I. Comparative study of the interaction of tannin with gelatin and certain carbohydrates, i, 1165.
- Stöcklin, P.** See **H. Lecher**.
- Stoermer, R.**, and **P. Klockmann**, ζ -truxinic acid. IX., i, 927.
- Stoffella, C. G.**, reversible system $\text{PbI}_2 + \text{ZnSO}_4 \rightleftharpoons \text{PbSO}_4 + \text{ZnI}_2$, ii, 1064.
- Stoklasa, J.**, influence of micro-organisms on the absorption of nutritive elements from soil, i, 765.
- Stoklasa, J.**, and **J. Penkava**, radioactivity of gases emitted from Vesuvius and the solfataras of Campania and their influence on the development of bacteria and higher plants, ii, 235.
- Stolfi, A.**, behaviour of lead containing radium- Ω in the formation of formaldehyde by Thunberg's method, ii, 1111.
- Stoll, L.** See **A. Thiel**.
- Stoll, W.** See **K. Freudenberg**, and **P. Pfeiffer**.

- Stollé, R.**, di(α -cyanobenzyloxy)phenylmethane, $\text{CHPh}(\text{O}\cdot\text{CHPh}\cdot\text{CN})_2$, i, 815.
- Stollé, R.**, and **G. Adam**, addition of azodicarboxylic esters to aromatic hydrocarbons, i, 1449.
- Stollé, R.**, **W. Giesel**, and **W. Badstübner**, benzisothiazole, i, 1466.
- Stollé, R.**, and **O. Orth**, 5-amino-2-phenyl-1:2:3:4-tetrazole, i, 1464.
- Stoltenhoff, W.** See **R. Anschütz**.
- Stone, S. B.** See **W. D. Harkins**.
- Stoner, E. C.**, distribution of electrons among atomic levels, ii, 85.
significance of spectroscopic magneton numbers, ii, 618.
- Stoner, E. C.**, and **L. H. Martin**, absorption of X-rays, ii, 257.
- Stoppel, A. E.**, **C. F. Sidener**, and **P. H. M.-P. Brinton**, iodometric determination of vanadium, ii, 73.
separation of molybdenum from vanadium as sulphide, ii, 718.
- Stoppel, A. E.** See also **P. H. M.-P. Brinton**.
- Storm, H. C.** See **P. Karrer**.
- Storms, L. B.** See **H. C. Sherman**.
- Stosius, K.**, and **E. Philippi**, action of ammonia on the esters of citraconic, mesaconic, and itaconic acids, i, 892.
action of ammonia on ethyl cinnamate, i, 918.
- Stott, V. H.**, viscosity of glass, ii, 1146.
- Stott, V. H.**, **E. Irvine**, and **D. Turner**, viscosity measurements with glass, ii, 503.
- Stoyle, F. W.** See **G. A. Edwards**, and **W. H. Perkin, jun.**
- Strack, E.** See **F. Wrede**.
- Stranski, I.**, rectifying action of contact detectors, ii, 55.
- Strassmann, S.** See **M. Kohn**.
- Strathern, R. C.** See **A. McKenzie**.
- Stratton, K.**, and **J. R. Partington**, latent heats of fusion. II. Palmitic acid and benzene, ii, 25.
- Straubel, R.**, geometry of the co-ordination number. I, ii, 362.
- Strauch, G.** See **A. Classen**.
- Straus, F.**, **O. Bernouilly**, and **P. Mautner**, Δ^1 -dihydronaphthalene. VI. *ac*-2-Hydroxy-1-ketotetrahydronaphthalene and β -naphthaquinol; autoxidation of polyhydric phenols, i, 1155.
- Straus, F.**, and **M. Ehrenstein**, distyryl ketone and triphenylmethane. XI. Diphenylstyrylcarbinol and the constitution of dimeric triphenylallene, i, 534.
- Straus, F.**, and **W. Ekhard**, Δ^1 -dihydronaphthalene. V. Addition of nitrogen oxides and of nitrosyl chloride to Δ^1 -dihydronaphthalene, i, 1138.
- Straus, F.**, and **W. Heyn**, distyryl ketone and triphenylmethane. XII. The dimethylacetal and methochloride of *p*-anisyl *p*-methoxystyryl ketone, i, 1430.
- Strebel, E.** See **F. Pollitzer**.
- Strebel, K.** See **H. de Diesbach**.
- Strebinger, R.**, and **J. Pollak**, micro-determination of chlorides, bromides, and iodides together, ii, 823.
- Strenk, C.** See **M. Centnerszwer**.
- Stroh, R. H.** See **J. S. Hepburn**.
- Stroh, W.** See **E. Späth**.
- Strouts, C. R. N.** See **F. D. Chataway**.
- Struensee, R.**, apparatus for the extraction of solids, ii, 996.
- Strutinski, L.** See **N. Seljakov**.
- Stscherbakov, I.**, apparatus for anodic processes [dichromates, per-salts, chloroform], ii, 979.
- Stschoukarev, S. A.** See **I. Shukov**.
- Stuart, G. L.** See **M. Skene**.
- Stuart, H. A.**, extinction of resonance fluorescence of mercury, ii, 629.
- Stuber, B.**, and **P. Kuhn**, blood clotting. XII. Detection of so-called thrombin in circulating blood, i, 452.
- Stuber, B.**, and **S. Lee**, blood clotting. X. Detection of so-called thrombin in oxalate plasma, i, 94.
- Stuckert, G. V.**, action of bile salts on gelatin, ii, 392.
rhythmic reactions showing U-shaped bands, ii, 1061.
- Stücklen, H.**, absorption spectrum of the neutral and ionised cadmium atom in the spark discharge under water, ii, 338.
- Stuhlman, O., jun.**, minimum velocity of impact to produce secondary electrons from tungsten, ii, 1104.
- Stamper, R.**, composition of rust, ii, 702.
- Stumpf, F.**, isotopes of mercury, ii, 619.
- Sturges, W. S.** See **L. B. Parsons**.
- Sturgis, R. D.** See **H. S. Harned**.
- Sturkop, S.** See **J. Snapper**.
- Subrahmanyam, G.** See **A. L. Narayan**.
- Subramanyam, V.** See **G. J. Fowler**.
- Sucharda, E.**, preparation of quinolinic acid and certain of its derivatives, i, 1317.
synthesis of "8-pyrindigotin," i, 1331.
- Suchariper, A.** See **F. Feigl**.
- Sudborough, J. J.**, and **P. R. Ayyar**, dehydration of rectified spirit by means of anhydrous calcium chloride, i, 1125.

- Sudborough, J. J., H. E. Watson, and B. T. Narayanan**, photochemical oxidation of aromatic hydrocarbons. I., i, 1136.
- Sudborough, J. J.** See also **B. V. Bhide, K. V. Hariharan, S. N. Iyer, B. S. Rao, and A. R. Yathiraja**.
- Sudholt, E.** See **A. Kratzer**.
- Sugden, S.**, determination of surface tension from the rise in capillary tubes, ii, 497.
- Sugden, S., J. B. Read, and H. Wilkins**, the parachor and chemical constitution. I. Polar and non-polar valencies in unsaturated compounds, ii, 936.
- Sugden, S.**, and **H. Whittaker**, the parachor and chemical constitution. II. Geometrical isomerides, ii, 937.
- Suginome, H.** See **R. Majima**.
- Sugiura, K.** See **K. G. Falk**.
- Sugiura, Y.**, doublets and triplets in the spectra of different elements, ii, 726.
- Sugiura, Y.** See also **H. Nagaoka**.
- Suhrmann, R.**, red limit and work of escape of photo-electric electrons, ii, 831.
- Suhrmann, R.**, and **P. Huppert**, quantitative absorption measurements in the ultra-violet in very dilute solutions, ii, 773.
- Suhrmann, R.**, and **K. von Lüde**, specific heat of bromine at low temperatures and its chemical constant, ii, 96.
- Sullivan, M. X.**, tests for cystine and cysteine, ii, 1211.
- Sultzaberger, J. A.** See **F. B. Dains**.
- Sulzer, G.** See **K. Cherbuliez**.
- Sumner, J. B.**, determination of sugar in diabetic urine, i, 186.
reagent for determination of sugar in urine, i, 1491.
- Sumner, J. B.**, and **V. A. Graham**, globulins of the jack bean (*Canavalia ensiformis*). II. Content of cystine, tyrosine, and tryptophan, i, 1027.
- Supniewski, J.**, transformation of aromatic compounds by *Bacillus pyocyaneus*, i, 340.
benzene derivatives of bismuth, i, 1473.
- Supniewski, J.** See also **J. A. Collazo**.
- Sur, N. K.**, arc spectrum of phosphorus, ii, 1014.
- Sur, N. K.**, and **R. N. Ghosh**, absorption spectrum of potassium vapour at high temperatures, ii, 453.
- Sure, B.**, dietary requirements for reproduction. III. Existence of reproductive dietary complex (vitamin-E) in ethereal extracts of yellow corn [maize], wheat embryo, and hempseed, i, 212.
dietary requirements for reproduction. IV. Solubility of vitamin-E in organic solvents, i, 752.
- Suszko, J.**, β -isoquinine and niquine, i, 1448.
- Suszko, J.** See also **K. Dziewoński**.
- Sutherland, (Miss) M. M. J.**, and **F. J. Wilson**, action of hydrazines on semicarbazones. I., i, 42.
- Sutter, K.** See **C. Mannich**.
- Sutton, G. D.** See **I. M. Heilbron**.
- Sutton, T. C.**, and **H. R. Ambler**, absorption of carbon monoxide. I. Critical comparison of some methods employed in gas analysis. II. Advantages of using hot reagent, ii, 436.
- Suzuki, M.**, blood of the seal, i, 1345.
cetacea. XIV. Nature and constitution of ambergris, i, 1348.
cetacea. XVI. Whale's flesh, i, 1349.
cetacea. XX. Composition of the urine in the *Delphinidae*, i, 1349.
cetacea. XXIII. Amniotic fluid of the sperm whale, i, 1350.
- Suzuki, U.**, **S. Odake**, and **T. Mori**, new sulphur-containing constituent of yeast, i, 338.
- Švéda, J.**, determination of combustible gases by combustion with cupric oxide. I. and II., ii, 154, 432.
simple apparatus for the distillation of mercury in a vacuum, ii, 428.
- Švéda, J.**, and **O. Pročké**, elementary analysis of organic substances by combustion with copper oxide in a vacuum, ii, 719.
- Svedberg, T.**, recent advances in the field of colloids, ii, 196.
density and hydration in gelatin sols and gels, ii, 202.
centrifuging, diffusion, and sedimentation equilibria of colloids and substances of high molecular weight, ii, 528.
- Svedberg, T.**, and **H. Rinde**, ultracentrifuge, ii, 233.
- Svedberg, T.** See also **N. D. Scott**, and **A. J. Stamm**.
- Svensson, E.** See **E. Bengtsson**.
- Swallow, J. C.** See **E. Mathias**.
- Swan, E.**, use of long mercury manometers, ii, 707.
- Swan, E.** See also **F. D. Farrow**.
- Swan, T. H.**, and **E. Mack**, vapour pressures of organic crystals by an effusion method, ii, 951.

- Swanson, W. W.**, effect of sodium benzoate on composition of blood and urine; possible synthesis of glycine in the body, i, 465.
- Swarts, F.**, the significance of atomic constants in additive properties, ii, 744.
- Swartz, O.** See *H. von Euler*.
- Swe, N. K.** See *K. Majumder*.
- Swe, R. K.** See *M. Saha*.
- Switzer, C. W.**, light scattering in salt solutions, ii, 512.
- Swientoslawski, W.**, relation between the equilibrium constants in the gaseous and liquid phases, ii, 204.
- thermochemistry of the α -oxides, ii, 364.
- deviations from van't Hoff's law, ii, 388.
- proposal to establish a secondary thermochemical standard, ii, 540.
- classification of reactions taking place in the presence of a contact substance, ii, 562.
- thermochemical researches on diazo compounds, ii, 1044.
- errors introduced in certain thermochemical data and the correction coefficients of these data, ii, 1139.
- Swientoslawski, W.**, and (*Mlle.*) *Z. Blaszkowska*, thermochemical researches on the diazo derivatives of aminophenols, ii, 1044.
- Swientoslawski, W.**, and *M. Popov*, correction of the thermochemical data of *P. Lemoult*, ii, 1139.
- Swientoslawski, W.**, and *W. Romer*, ebullioscopic apparatus, ii, 319.
- Swientoslawski, W.**, and (*Mlle.*) *H. Starcevska*, correction of the thermochemical data of *A. Valeur*, ii, 1139.
- Swientoslawski, W.** See also *P. W. Zubov*.
- Swift, E. H.**, separation of gallium, ii, 71.
- Swinne, R.**, elements which are "electron-isomerides," ii, 922.
- Sword, J.**, action of hydrogen peroxide on limonene, i, 1163.
- Syziemski, V.**, non-reducing "limit dextrin I," i, 368.
- oxidation of amylopectin, i, 369.
- diastase, i, 469.
- action of α -diastase on the so-called amylopectin, i, 470.
- source of error in the use of Lintner's starch solution for determining diastatic power, i, 470.
- Szabó, A.** See *A. Lottermoser*.
- Szappanyos, B.** See *Z. Ernst*.
- Szegvari, E.**, theory of elasticity of colloidal solutions, ii, 111.
- Szemző, B.** See *A. Schaarschmidt*.
- Szendrő, P.** See *E. Fromm*.
- Szent-Györgyi, A. von**, mechanism of oxidation of succinic acid and *p*-phenylenediamine; theory of cell respiration, i, 93.
- cell respiration. II. Mechanism of oxidation of lactic acid. III. Re-activation experiments using artificial co-enzymes, i, 708.
- Szent-Györgyi, A. von.** See also *R. J. Hamburger*.
- Szidon, V.** See *H. Beechhold*.
- Szilárd, P.**, colorimetric method for the quantitative determination of bile salts in blood, i, 1485.
- Szivessy, G.**, Kerr effect in gases, ii, 15.
- Born's dipole theory of anisotropic liquids, ii, 1123.
- Sztencel, J.** See *J. Bielecki*.

T.

- Tabern, D. L., W. R. Orndorff**, and *L. M. Dennis*, germanium. XII. Tetra-alkyl and tetra-aryl compounds of germanium; germanium tetraethoxide, i, 1108.
- Tacchini, G.**, thermal analysis of the system, lithium fluoride-magnesium fluoride, ii, 122.
- Tacchini, G.** See also *G. R. Levi*.
- Tacke, B.**, soil acidity and its determination, i, 875.
- Tacke, I.** See *W. Noddack*.
- Täufel, K.**, and *C. Wagner*, constitution of aqueous solutions of *o*-benzoic-sulphinide (saccharin) and *p*-phenylcarbamide (dulcin), i, 841.
- oxidimetric determination of tartaric acid and other organic substances, ii, 1007.
- Taeuffenbach, G. von.** See *F. Kögl*.
- Taffe, M.**, *tert*-trichlorobutyl alcohol and its esters, i, 2.
- Taft, R.** See *H. P. Cady*.
- Tafari, G. B.** See *P. Leone*.
- Tague, E. L.**, isoelectric points of gliadin and glutenin, ii, 391.
- Takahashi, K.**, carbohydrate content of the brain, i, 1487.
- Takahashi, K., Z. Makamiya, K. Kawakami**, and *T. Kitasato*, physical and chemical properties of biosterin (vitamin-A) and its physiological significance, i, 1365.
- Takahashi, K.** See also *L. Asher*.
- Takahashi, T.** See *P. Karrer*.
- Takamine, T.**, and *M. Fukuda*, mercury line 2270Å. ($1s-2p_1$), ii, 166, 725.

- Takamine, T.** See also *P. D. Foote*.
- Takanosu, S.**, nitrogen and chloride excretion in the urine following changes in the relations between blood and tissues, i, 185.
- Takashima, N.** See *P. Karrer*.
- Takata, M.**, cetacea. XI. Physiological significance of the compartments in the stomach of the whale, i, 1348.
- cetacea. XXI. Enzymes of the pancreas, i, 1349.
- Takei, S.**, rotenone, an active principle of the derris root, i, 761.
- Takehara, K.** See *D. Holde*.
- Takemura, S.** See *Z. Matsuoka*.
- Talen, H. W.**, formation of *d*-sorbose and *d*-gulose by oxidation of *d*-sorbitol with bromine water, i, 1382.
- Tallyn, W. H.** See *C. D. Hurd*.
- Talmud, B.** See *P. Petrenko-Kritschenko*.
- Talmud, D.** See *P. Petrenko-Kritschenko*.
- Tamaru, K.**, equilibrium diagram of the system, iron-carbon-titanium, ii, 787.
- Tamele, M.** See *V. Bayerle*.
- Tamm, I.**, quantitative apprehension of the principle of correspondence and the calculation of the intensities of spectral lines. I, ii, 1023.
- Tammann, G.**, distribution of atoms in mixed crystals, ii, 20.
- origin of free oxygen in the air, ii, 100.
- extraction limit of the NaCl-AgCl mixed crystal, ii, 366.
- reaction limits of some platinum alloys, ii, 378.
- dissolution velocity and etched figures on crystals, ii, 942.
- determination of crystal-orientation in conglomerates, ii, 1132.
- glasses as supercooled liquids, ii, 1145.
- Tammann, G.**, and *H. Bredemeier*, hollow channels opening on to the surface of metals, ii, 388.
- electrical conductivity of films, ii, 541.
- Tammann, G.**, and *O. Dahl*, silver-tin amalgams, ii, 502.
- lead-zinc-antimony alloys, ii, 535.
- Tammann, G.**, and *C. F. Grevenmeyer*, silicates. III. Action of magnesium, calcium, and barium oxides on silicates at high temperatures and the preparation of metallic iron from silicates, ii, 580.
- Tammann, G.**, and *G. T. R. Krige*, equilibrium pressures of hydrates of gases, ii, 869.
- Tammann, G.**, and *W. Krings*, orientation of etched figures and the distribution of the atoms in the space lattice, ii, 942.
- Tammann, G.**, and *G. Siebel*, tempercolours of iron-carbon alloys and of the mixed crystals Fe-Ni; Fe-V; Fe-Al, ii, 1169.
- Tammann, G.**, and *T. Stassfurth*, copper and silver amalgams, ii, 377.
- Tanabe, T.**, studies in the aluminium-zinc system, ii, 204.
- Tanaka, C.** See *S. Komatsu*.
- Tanaka, M.**, naphthalene derivatives, i, 1061.
- hystazarindiquinone (2:3:9:10-anthra-diquinone), i, 1077.
- quinone diazides of the anthraquinone series, i, 1106.
- 9:10-anthraquinone-2:3- and -1:2-quinonediazides and their derivatives, i, 1434.
- Tanaka, T.**, wave-lengths of additional lines in the many-lined spectrum of hydrogen, ii, 909.
- Tanaka, T.** See also *O. W. Richardson*.
- Tanaka, Y.**, and *S. Nagai*, naphthenic acids. IV. Naphthenic acids derived from Kubiki kerosene distillates, i, 252.
- naphthenic acids derived from Nishiyama petroleum, i, 1271.
- Tanaka, Y.**, *S. Nagai*, and *S. Ishida*, naphthenic acids. V. Naphthenic acids derived from Niitsu petroleum, i, 252.
- Tananaev, N. A.**, equilibrium $\text{Fe}^{++} + \text{Ag} \rightleftharpoons \text{Fe}^{+++} + \text{Ag}$, ii, 121.
- qualitative "drop-analysis" of the elements in groups I. to III., ii, 324.
- reaction between potassium permanganate and hydrogen peroxide in presence of ammonium sulphate, ii, 440.
- gravimetric determination of iron and a rapid method for dissolving ignited iron oxide, ii, 603.
- Tancov, N. V.**, solubility of the crystallohydrates of nickel sulphate, ii, 852.
- direction of spontaneous crystallisations and chemical transformations, ii, 868.
- Tangl, H.** See *L. Jendrassik*.
- Tani, Y.** See *M. Konishi*.
- Tanner, F. W.**, the "bios" question, i, 617.
- Tanner, W. F.** See *J. Goldberger*.
- Tapley, R. B.** See *W. H. Perkin, jun.*
- Tarbett, V. J.** See *F. M. Rowe*.
- Tartakovski, P.**, diamagnetism and the anomalous Zeeman effect, ii, 1016.
- Tartar, H. V.**, and *J. R. Lorah*, influence of hydrogen-ion concentration on the protective action of gelatin on Zsigmondy's standard gold sol, ii, 864.

- Tartar, H. V.** See also *C. Z. Draves*.
Tartarini, G. See *G. Scagliarini*.
Tasaki, T., absorption spectra of vegetable dyes of the flavone series. II. Influence of methoxy-substitution on the absorption spectra of flavones and flavonols, i, 1444.
 absorption spectra of vegetable dyes of the flavone series. III. Absorption spectra of certain flavone and flavonol glucosides, i, 1445.
 absorption spectra of benzophenone derivatives, ii, 838.
Tate, J. T., spectroscopic evidence of impact ionisation by positive ions in mercury vapour, ii, 1106.
Tatum, W. W. See *J. Baddiley*, and *British Dyestuffs Corporation, Ltd.*
Taub, L., L. Schütz, and K. Meisenburg, allylerotylbarbituric acid, i, 435.
Taube, K. See *H. Leuchs*.
Taubenhaus, M. See *J. K. Parnas*.
Taubmann, G., accelerating influence of protein-free colloids on the hydrolysis of urea by soya bean urease, i, 744.
Tausson, W. O., utilisation of paraffin by micro-organisms, i, 479.
Tavernier, P. See *P. Fleury*.
Tavola, G. See *L. Avogadro*.
Taylor, B. S. See *J. B. Conant*.
Taylor, C. J. A. See *G. T. Morgan*.
Taylor, C. S., anode effect, ii, 548.
Taylor, E. M., toxicity of acids towards yeast, i, 1011.
Taylor, G. B., vapour pressure of aqueous solutions of nitric acid, ii, 767.
Taylor, G. I., and C. F. Elam, plastic extension and fracture of aluminium crystals, ii, 488.
Taylor, H., ionic nature of hæmoglobin, i, 93.
Taylor, H. A., hydration and solution, ii, 858.
Taylor, H. S., theory of the catalytic surface, ii, 562.
 photosensitisation and the mechanism of chemical reactions, ii, 1078.
Taylor, H. S., and H. W. Close, acid catalysis in lactone formation, ii, 1070.
Taylor, H. S., and A. L. Marshall, reactions of hydrogen activated by excited mercury atoms, ii, 1078.
Taylor, H. S. See also *J. S. Beekley*, and *W. W. Russell*.
Taylor, J. B. See *W. H. Rodebush*.
Taylor, M. C., R. B. McMullin, and C. A. Gammal, hypochlorous acid and the alkyl hypochlorites, i, 501.
Taylor, N. W., and G. N. Lewis, paramagnetism of "odd molecules," ii, 945.
Taylor, P. A., vibration of the carbonate group, ii, 1115.
Taylor, W., photo-activation of chlorine, ii, 811, 1079.
Taylor, W. W. See *E. Ponder*.
Tazelaar, M. See *H. Chick*.
Teakle, L. J. H. See *C. B. Lipman*.
Tear, J. D. See *E. F. Nichols*.
Techoueyres, E. See *P. B. Varilla*.
Teichmann, L. See *G. Bredig*.
Telfer, S. V., calcium and phosphorus metabolism. III. Absorption and fixation in the skeleton, i, 859.
Tendeloo, H. J. C. See *H. R. Kruyt*.
Tendick, F. H. See *A. M. Hjort*.
Teraoka, M., taurine. I. Methylation and acetylation of taurine, i, 1390.
Terenin, A. See *E. Gross*.
Terentiev, A. P., magnesium alkoxides and their application to the synthesis of alcohols, i, 110.
Terentiev, A. P., and V. V. Tschelincev, bromination and iodination of some derivatives of pyrrole, i, 295.
Terlikowski, F., action of soil solutions on root development, i, 1029.
Terrill, H. M., absorption of cathode rays in aluminium foil, ii, 79.
Terroine, E. F., R. Bonnet, and A. Hee, energy balance in development of various vegetable organisms and oxygen content of medium, i, 1517.
Terroine, E. F., and J. Roche, causes of differences of intensity of the elementary respiration of tissues, i, 709.
Terroine, E. F., S. Trautmann, and R. Bonnet, quantitative law of energy exchanges in formation of carbohydrates from proteins and fats in plants, i, 755.
 energy balance during growth of micro-organisms and its dependence on composition of the nutrient medium, i, 1117.
Terry, E. M., and L. Eichelberger, halogenation of fumaric and maleic acids; Walden inversion, i, 631.
 catalytic transmutation of maleic acid into fumaric acid, i, 780.
Terry, E. M. See also *N. A. Milas*.
Tervaert, D. G. C., determination of carbon monoxide in blood, i, 710.
 determination of sugar in small quantities of blood, i, 1200.
Terwen, A. J. L., determination of urobilin and urobilinogen in urine and faeces, i, 1351.
Teschner, G. See *C. G. Schwalbe*.
Teves, M. C. See *V. Henri*.
Thayer, F. K., "butesin" picrate, a new type of anæsthetic-antiseptic, i, 467.

- Theis, R. C., and S. R. Benedict**, inorganic constituents of the serum in cancer, i, 724.
- Thelen, C.** See **W. Dilthey**.
- Thibaud, J.**, large quantum γ -rays from the active elements of the thorium family, ii, 10.
- γ -radiation of mesothorium II., ii, 85.
- study of characteristic spectra of γ -rays by crystal diffraction, ii, 176.
- absorption and diffusion of γ -radiation of great energy in light elements, ii, 257.
- quantity of heat set free as γ -radiation in radioactive disintegration, ii, 464.
- characteristic γ -ray spectra and their photo-electric effect, ii, 622.
- Thibaud, J.** See also **M. de Broglie**.
- Thiel, A.**, dual ions and internal salts, ii, 37.
- Thiel, A., and L. Stoll**, lead nitrite, ii, 419.
- Thiele, H.** See **H. Kautsky**.
- Thiele, J.**, thermo-electricity of electrolytes, ii, 545.
- Thiele, J.** See also **H. Wieland**.
- Thielmann, F.** See **F. Holtz**.
- Thierfelder, H., and E. Klenk**, behaviour of fatty-aromatic compounds in the animal body, i, 192.
- behaviour of acetophenone and benzene in the animal body, i, 193.
- preparation of the glucosamine-containing phosphatides of Fränkel and Kafka from brain, i, 997.
- Thies, O. J., jun.** See **H. B. Arbuckle**.
- Thiessen, M.** See **J. Gadamer**.
- Thiessen, P. A., and C. Carius**, method for measuring small changes of swelling, ii, 520.
- Thiessen, P. A., and J. Heumann**, mobility of the particles in gold hydrosols, ii, 1157.
- Thiessenhusen, W.** See **H. Schlee**.
- Thilo, E.** See **F. Paneth**.
- Thivolle, L., and J. Roche**, preparation of crystalline oxyhæmoglobin by ultrafiltration, i, 1111.
- Thoenes, F.**, "bound" water in colloids and animal tissues, i, 718.
- Thomas, A., and A. W. Dox**, sodium salts of the nucleic acid from wheat embryo, i, 873.
- Thomas, A. W., and M. W. Kelly**, thermolability of collagen, ii, 520.
- Thomas, A. W., and E. R. Norris**, "irregular series" in the precipitation of albumin, i, 603.
- Thomas, C. H.**, soft X-rays from iron, ii, 336.
- Thomas, E. C.** See **G. R. Stewart**.
- Thomas, F.** See **O. Ruff**.
- Thomas, H.** See **J. Tröger**.
- Thomas, J.** See **E. G. Beckett**.
- Thomas, J. S., and John Henry Jones**, polysulphides of the alkali metals.
- V. Lithium monosulphide and disulphide, ii, 58.
- Thomas, J. S., and R. W. Riding**, organic polysulphides. II. Action of anhydrous potassium pentasulphide on allyl iodide and on some aromatic halogen compounds, i, 4.
- organic polysulphides. III. Action of the disulphides of the alkali metals and of sodium tetrasulphide on some organic halogen compounds, i, 113.
- Thomas, J. S. G.** See **A. R. Pearson**.
- Thomas, K., and F. Bettziche**, action of Grignard reagents on amino-acids. I., i, 250.
- action of Grignard reagents on amino-acids. IV. Acylamino-acids, i, 251.
- action of Grignard reagents on amino-acids. II. Conversion of β -amino- α -diphenylethan- α -ol into diphenylacetaldehyde, i, 257.
- Thomas, P.**, test for pentoses, ii, 604.
- Thomas, P., and R. Imas**, detection of pentoses in plant glucosides, ii, 1209.
- Thomas, V.**, new type of organic magnesium compounds, i, 1055.
- Thompson, A. P., and H. C. Kremers**, rare earths. XVIII. Preparation and properties of cerium-free "Misch metal," ii, 580.
- Thompson, F. C., and W. H. Dearden**, experiment on solid diffusion and its possible bearing on the structure of solid solutions, ii, 29.
- Thompson, G.**, synthesis of *p*-thiolbenzoic acid, i, 815.
- Thompson, H. C.** See **D. W. Wilson**.
- Thompson, J. W.** See **C. Voegtlin**.
- Thompson, P. K.**, recovery of small amounts of zinc from biological material ashed by incineration, i, 1489.
- Thompson, T. J., and R. H. Edes**, preparation of 6-methylcoumarin and its derivatives, i, 1442.
- Thompson, T. J., H. L. Bedell, and G. M. Buffett**, preparation of substituted hydantoins, i, 699.
- Thoms, H.**, changes in the sweetening power of dulcin (*p*-phenetylcarbamide) by chemical modification, i, 538.
- detection of ethyl phthalate in essential oils, ii, 1008.

- Thoms, H.** [with *B. Ambrus, H. Kahre,* and *M. Kemp*], odorants. I. Capacity for condensation of *iso*-butaldehyde. II. New derivatives of eugenol. III. New asymmetric tertiary alcohols of high molecular weight, and the direction in which they lose water, i, 788.
- Thoms, H.,** and *K. Bergerhoff*, constitution of lupanine, i, 575.
- Thomson, G. P.**, physical interpretation of Bohr's stationary states, ii, 733.
- Thomson, (Sir) J. J.**, radiation given out by gases through which electric discharges are passing, ii, 461.
- Thoræus, R.**, *M*-series of tungsten, ii, 5.
- Thoræus, R.** See also *E. Bäcklin*.
- Thorkelsen, K.** See *C. N. Riiber*.
- Thurlow, S.** See *M. Dixon*.
- Thorne, P. C. L.** See *E. Hatschek*.
- Thornton, C. W.** See *C. N. Hinshelwood*.
- Thornton, H. G.** See *W. E. Brechley*.
- Thornton, W. M.,** and *J. A. Harle*, electrolytic corrosion of ferrous metals, ii, 303.
- Thornton, W. M., jun.,** and *D. Getz*, use of *p*-nitrobenzoic acid as an acidimetric standard, ii, 597.
- Thorpe, J. F.** See *J. P. C. Chandra-sena, S. Dutt, F. R. Goss, W. Haerdi, G. A. R. Kon, E. Rothenstein, E. A. Speight,* and *C. H. Spiers*.
- Thurlow, S.**, xanthine oxydase. IV. Relation of xanthine oxydase and similar oxidising systems to Bach's oxygenase, i, 743.
- Thurlow, S.** See also *D. W. Wilson*.
- Thwaites, J. T.** See *J. K. Robertson*.
- Tian, A.** See (*Mlle.*) *Béranger*.
- Tideswell, F. V.,** and *R. V. Wheeler*, fusain and its oxidation; composition of coal, i, 373.
- banded bituminous coal; composition of coal, i, 373.
- Tidmus, J. S.** See *J. N. Friend*.
- Tiede, E.,** and *H. Tomaschek*, activating element in luminescent boron nitride, ii, 931.
- Tiegs, O. W.**, colour test for guanidine bases, with physiological applications, i, 97.
- function of creatine in muscular contraction, i, 1003.
- Tietze, E.** See *L. Claisen*.
- Tiffeneau, M.,** and *A. Orékhov*, migratory tendencies of organic radicals. I., i, 378.
- migratory tendencies of organic radicals. II. Comparison of *p*-anisyl and phenyl groups, i, 679.
- Tiffeneau, M., A. Orékhov,** and *J. Lévy*, isomerism of ethylene oxides with migration [of groups]; mechanism of molecular transpositions, i, 544.
- Timoféev, W. F., G. E. Muchin,** and *W. G. Gurevitch*, influence of neutral salts on the reaction between ferric chloride and stannous chloride, ii, 586.
- Timosuff, V.**, oil from *Pistacia terebintus*, i, 1124.
- Timpany, C. R.** See *A. F. O. Germann*.
- Tindal, S. J.**, detection of cobalt, alone or in presence of nickel and other salts, in neutral solution, ii, 242.
- Tischbein, W.** See *M. Busch*.
- Tistchenko, D. V.**, organo-magnesium compounds; reaction between magnesium and acyl halides, i, 775.
- Tocco-Tocco, L.**, causes modifying the toxicity of strophanthin, i, 613.
- Tödt, apparatus** for direct reading of conductivity (and salt content) of a salt solution, ii, 898.
- Tödt, P.**, electrolytic separation of base radioactive elements, ii, 54.
- Toia, V.** See *G. Charrier*.
- Tolksdorf, S.** See *H. Mark*.
- Tolman, R. C.**, problem of the quantitative formulation of Bohr's correspondence principle, ii, 466.
- mechanism of chemical reaction, ii, 799.
- estimation of maximum coefficients of absorption, ii, 1112.
- Tolman, R. C.** See also *L. Pauling,* and *E. C. White*.
- Tomaschek, H.** See *E. Tiede*.
- Tomaschek, R.**, phosphorescent properties of the rare earths in alkaline-earth phosphors. I. and II., ii, 12, 354.
- Tómasson, H.** See *S. Holm*.
- Tomiček, O.**, use of titanous chloride in potentiometric titrations, ii, 243.
- potentiometric determination of cerium, ii, 716.
- Tomiček, O.** See also *J. M. Kolthoff*.
- Tominaga, H.**, formation of ammonia in the oxyhydrogen flame, ii, 48.
- Tominaga, T.**, gravimetric micro-determination of cholesterol, i, 453.
- Tomita, T.**, adsorption and osmotic phenomena in gels, ii, 202.
- Tomkeiev, S. I.**, structure of aragonite, ii, 1035.
- Tomkinson, (Miss) M. G.**, condensation of acetylene and hydrogen sulphide in presence of catalysts, i, 58.
- Tomkinson, (Miss) M. G.** See also *W. H. Mills*.
- Tomoda, Y.**, production of glycerol by fermentation, i, 227.

- Toni, G. de**, preparation of enzymes; rennin from gastric mucous membrane, i, 200.
- Tonn, O.** See *O. Mumm*.
- Tool, A. G.**, and *E. E. Hill*, constitution and density of glass, ii, 1145.
- Torti, P.**, reactions of picric acid and of cinchonin [1:8-dihydroxyanthranol], ii, 905.
- Toul, F.** See *H. Křepelka*.
- Tounet, J.** See *M. Loeper*.
- Touplain, F.** See *F. Bordas*.
- Tourneux, M.**, and (*Mlle.*) **Pernot**, aqueous and acetone solutions of potassium bromo- and iodo-mercurates, ii, 380.
- Toussaint, C.** See *J. Bardet*.
- Toussaint, L.** See *A. Schleicher*.
- Townend, D. T. A.** See *W. A. Bone*.
- Townsend, R. E.** See *A. R. Carr*.
- Toy, F. C.**, latent photographic image. I. Relation between light frequency and number of developable centres, ii, 143.
- Toyama, Y.**, unsaponifiable constituents (higher alcohols) of shark and ray liver oils. IV., i, 4.
- Toyama, Y.**, and *T. Tsuchiya*, separation of the highly unsaturated fatty acids in train oil, i, 1129.
- Traill, D.** See *E. L. Hirst*, and *A. K. Macbeth*.
- Trapesnikov, O.** See *P. Lukirsky*.
- Traube, J.**, and *E. Rackwitz*, action of protective colloids, ii, 968.
- Traube, J.**, and *S. Yumikura*, lipoids and the theory of surface action. II., i, 735.
- Traube, W.**, behaviour of sodium ethoxide solutions towards nitric oxide, i, 110.
- Traube, W.** [with *P. Baumgarten, L. Baermann, W. Lange*, and *R. Justh*], chlorosulphonic acid esters, i, 775.
- Traube, W.**, *E. Burmeister*, and *R. Stahn*, bivalent chromium, ii, 990.
- Trautmann, S.** See *E. F. Terroine*.
- Trautz, M.**, and *F. Geissler*, dissociation of chlorine into atoms, ii, 294.
- Trautz, M.**, and *W. Gerwig*, velocity of the reaction $2\text{NO} + \text{Cl}_2 \rightarrow 2\text{NOCl}$ in the condensed state, ii, 878.
- Trautz, M.**, and *H. Schneter*, termolecular collisions resulting from bimolecular collisions considered from the physical and chemical points of view. I. Formation of nitrosyl chloride, ii, 552.
- Travers, A.**, reduction of permanganic acid by arsenious acid and mechanism of the oxidation of manganous salts to permanganic acid, ii, 585.
- Traxler, R. N.**, and *F. E. E. Germann*, decolorisation of carbon disulphide solutions of iodine by red phosphorus, ii, 1087.
- Treadwell, W. D.**, and *A. Köhl*, electrometric titration of fluorides, ii, 1197.
- Treadwell, W. D.**, and *C. Paoloni*, application of three-electrode valves in electrometric titrations, ii, 595.
- Treadwell, W. D.**, and *H. Stern*, determination of the decomposition potential of aluminium bromide in aqueous solution, ii, 41.
- Trendtel, F.**, combination of acids with insoluble albumin, i, 91.
- Trénel, M.**, simple apparatus for the electrometric measurement of hydrogen-ion concentration [of soil suspensions], i, 874.
- apparatus for the determination of p_{H} , ii, 64.
- Trénel, M.**, and *R. Wilkendorf*, aliphatic nitro-alcohols. III., i, 112.
- Tressler, D. K.**, and *A. W. Wells*, iodine content of sea foods, i, 183.
- Tresser, P.** See *E. Stiasny*.
- Triandafil, S.**, influence of acidity on the polarisation of nickel, ii, 405.
- Tricker, R. A. R.**, determination of the variation of the mass of the electron with velocity, using homogeneous β -rays, ii, 1021.
- Tricot, E.** See *A. Kovache*.
- Trillat, J. J.**, molecular orientation of the fatty acids, ii, 195.
- X-ray study of fatty acids and dibasic acids, ii, 489.
- X-ray study of soaps and fats, ii, 752.
- method of following the course of certain chemical reactions by means of X-rays; oxidation of unsaturated fatty acids, ii, 1127.
- Trillat, J. L.** See *L. de Broglie*.
- Tritt, C.** See *S. Fränkel*.
- Tritton, F. S.**, and *D. Hanson*, iron and oxygen, ii, 316.
- Trocello, E.** See *C. Serono*.
- Tröger, J.**, and *C. Brohm*, 3-*o*- and -*p*-anisolesulphonyl- and -phenetolesulphonyl-2-methylquinolines, their derivatives, and their behaviour towards nascent hydrogen, i, 1452.
- Tröger, J.**, and *J. Danehl*, condensation of *m*- and *o*-nitrobenzaldehyde with 8-methoxy-2-methylquinoline, i, 974.
- Tröger, J.**, and *E. Dunker*, condensation of hydroxy- and methoxy-2-methylquinolines, and 2-hydroxylepidine with aromatic aldehydes, i, 432, 975.
- Tröger, J.**, and *O. Philippson*, 2:4:5-triphenyloxazole or benzilam, i, 986.

- Tröger, J.**, and **H. Thomas**, 4:5-diphenyl-2-*m*-nitrophenylglyoxaline, 2:4:5-tri(*p*-nitrophenyl)glyoxaline, and some derivatives, i, 979.
- Troensegaard, N.**, and **Eugen Fischer**, composition of proteins. VI. Gliadin, i, 848.
- Troje, E.**, determination of hydroxy-methylfurfuraldehyde, and Fiehe's reaction, ii, 1210.
- Tropsch, H.** See **F. Fischer**.
- Trotman, C. G.** See **D. L. Chapman**.
- Trotman, E. R.**, preparation of quaternary hydrocarbons, i, 382.
- Trowbridge, A.**, spectroscopy in the infra-red region of the spectrum, ii, 335.
- Truffaut, G.**, and **N. Bezssonoff**, predominance of activity of anaerobic nitrogen-fixing bacteria in the soil, i, 1227.
- Truka, A.** See **E. Fromm**.
- Trumper, M.** See **H. Leffmann**.
- Trumpy, B.** See **J. Holtsmark**.
- Trusty, A. W.** See **A. E. Wood**.
- Tryhorn, F. G.**, and **G. Jessop**, decomposition of hydrogen peroxide by cobaltic hydroxide, ii, 807.
- Tsatsas, T.** See **C. Dosios**.
- Tscharner, H. von.** See **E. Briner**.
- Tschelincev, V. V.**, higher valencies of onium compounds, ii, 480.
strengths of the higher valencies and their significance for assimilation, catalysis, and other chemical processes, ii, 481.
- Tschelincev, V. V.** See also **A. P. Terentiev**.
- Tschernik, G. P.**, calcio-ancylite and accompanying minerals from the Chibine Mountains [Russian Lapland], ii, 322.
- Tschirsch, A.**, autoxidation of fats, resins, terpenes, and tannins, i, 356.
- Tschirsch, A.**, and **H. Gfeller**, adipocere, i, 1203.
- Tschirvinski, P. N.**, tyuyamunite from the Tyuya-Muyun radium in Fergana, ii, 430.
- Tschitschibabin, A. E.**, tautomerism of 2-aminopyridine. III. Dicyclic derivatives of the tautomeric form of 2-aminopyridine with a glyoxaline nucleus, i, 158.
preparation of hydroxy derivatives of pyridine, quinoline, and their homologues, i, 299.
tautomerism of 2-aminopyridine. IV. Method for the preparation of pyriminazole and its homologues, i, 1328.
2-amino-3-methylpyridine and dinitro-2-aminopyridine, i, 1328.
- Tschitschibabin, A. E.**, and **I. G. Bylinkin**, 2-pyridylpyrrole, i, 1174.
- Tschitschibabin, A. E.**, and **R. A. Konovalova**, nitro derivatives of methylated forms of 2-aminopyridine, i, 1328.
- Tschitschibabin, A. E.**, **B. M. Kuindshi**, and **S. V. Benevolenskaja**, products of the nitration of 2- and 4-benzylpyridine, i, 1316.
- Tschitschibabin, A. E.**, and **G. P. Menschikov**, alkylation of pyridyl-2-nitroamine. I. New reaction analogous to that of Kishner and Wolff, i, 437.
- Tschitschibabin, A. E.**, and **E. D. Ossetrova**, tautomerism of 4-aminopyridine. II. Methylated derivatives of 4-aminopyridine, i, 1328.
- Tschitschibabin, A. E.**, **D. P. Vitkovski**, and **M. I. Lapschin**, nitration of 2- and 4-aminoquinoline, i, 838.
- Tschörner, W.** See **B. M. Margosches**.
- Tschopp, E.** See **H. Rupe**.
- Tschugaev, L. A.** [with **E. Fritzmann**], complex base of osmium, i, 1395.
- Tschugaev, L. A.**, **M. Skanavy-Grigorjeva**, and **A. Posnjak**, hydrazine carbylamine complexes of platinum, i, 1395.
- Tschui, J.** See **F. Kehrmann**.
- Tsubura, S.**, physiology of plain muscle; comparison of the reducing properties of plain and striated muscle, i, 1004.
- Tsuchiya, T.** See **Y. Toyama**.
- Tsujimoto, M.**, unsaponifiable matter of arctic sperm oil, i, 772.
occurrence of highly unsaturated acids in algae, i, 778.
constitution of the tetradecenoic acid derived from sperm oil, i, 1128.
- Tsukamoto, R.**, dynamic action of ions on growth on a vitamin-rich diet, i, 210.
- Tubandt, C.**, and **H. Reinhold**, migration of ions in solid electrolytes, ii, 300.
- Tudhope, T. M. A.** See **A. McKenzie**.
- Tuley, W. F.** See **W. A. Noyes**.
- Tunnicliffe, H. E.**, glutathione; occurrence and determination of glutathione in tissues, i, 752.
glutathione; relation between the tissues and the oxidised dipeptide, i, 752.
- Tunnicliffe, H. E.** See also **C. P. Stewart**.
- Turek, O.** See **C. Krauz**.
- Turley, H. G.** See **J. Kenyon**.
- Turner, D.** See **V. H. Stott**.
- Turner, E. E.**, and **W. H. Patterson**, cryoscopy in sodium sulphate decahydrate, ii, 273.

- Turner, *E. E.*, and *A. B. Sheppard*, 6-chlorophenoxarsine, i, 705.
- Turner, *E. E.* See also *L. H. A. Holmes*, *A. F. Hunt*, and *E. Roberts*.
- Turner, *L. A.*, relative sizes of the kernels of ten electrons of sodium, magnesium, aluminium, and silicon, ii, 349.
- energies of multiple X-ray ionisation of light atoms, ii, 915.
- Turner, *L. A.*, and *K. T. Compton*, absorption of a line of the principal series of singly ionised atomic mercury, ii, 613.
- absorption and emission spectra of the Geissler discharge in mercury vapour and in mixtures of mercury and hydrogen, ii, 613.
- nature of the iodine line 2062 Å., ii, 725.
- Turner, *L. A.* See also *W. H. McCurdy*.
- Turner, *W. A.*, and *A. M. Hartman*, non-volatile organic acids of alfalfa [lucerne], i, 1124.
- Turner, *W. E. S.*, some physical properties of silicate glasses and their possible bearing on the history of igneous rocks, ii, 767.
- nature and constitution of glass, ii, 1144.
- Turova-Pollak, *M. B.* See *N. D. Zelinski*.
- Tutin, *F.*, pectin content of normal and "silvered" apple leaves, i, 1028.
- fruits and their products. I. Apple juice as a source of sorbitol, i, 1028.
- fruits and their products. II. Fate of sugar during "cider sickness," i, 1028.
- Tutton, *A. E. H.*, crystallographic and optical properties of iodosuccinimide, ii, 747.
- monoclinic double sulphates containing thallium; thallium nickel and thallium cobalt sulphates, ii, 749.
- Tuve, *M. A.*, impact ionisation by low-speed positive ions, ii, 1106.
- Tweedy, *S. K.* See *J. R. Partington*.
- Twist, *R. F.*, and *S. Smiles*, directing influence of the methanesulphonyl group, i, 894.
- Tyndall, *A. M.* See *G. C. Grindley*.
- Tyson, *P. L.* See *A. W. C. Menzies*.
- Uglow, *W.*, "dulseitol" as artificial sugar substitute from the hygienic point of view, i, 1356.
- Uhlenbruck, *P.*, enzyme studies with colloidal gold, i, 742.
- Ulich, *H.*, measurement of very high electrolyte resistances by Kohlrausch's method, ii, 671, 976.
- dielectric constants of solutions of electrolytes, ii, 964.
- Ulich, *H.* See also *P. Walden*.
- Ulpts, *R.* See *P. A. Levene*.
- Ulrich, *F.* See *K. Ziegler*.
- Ulrich, *H. M.* See *R. Pummerer*.
- Underhill, *F. P.*, and *G. T. Pack*, pharmacological behaviour of malic acid and its salts, i, 1211.
- Underhill, *F. P.*, and *M. A. Sallick*, mechanism of water intoxication, i, 613.
- Underwood, *H. W., jun.*, [negative] catalysis, ii, 308.
- Ungarelli, *A.*, a nitroprusside of bivalent iron, i, 526.
- Unger, *K.* See *K. Schaum*.
- Ungerer, *E.*, basic exchange with salts of organic nitrogen compounds, ii, 658.
- Unmack, *A.* See *N. Bjerrum*.
- Unsöld, *A.*, screening-doublets of the Bowen-Millikan ultra-violet spectra, ii, 1016.
- Urazov, *G. G.*, nature of aluminium-magnesium alloys, ii, 786.
- graphic methods of representing equilibria in systems of three components, ii, 788.
- Urbach, *E.*, and *P. Fantl*, determination of chlorine in small amounts of tissue, i, 1203.
- Urbain, *E.*, absorption of vapours by charcoal, ii, 191.
- Urbain, *G.* See (*Mlle.*) *M. Marquis*.
- Urbain, *P.* See (*Mlle.*) *M. Marquis*.
- Urbschat, *E.* See *A. Binz*.
- Urey, *H. C.*, disturbing influence of an electric field on the Zeeman effect in spectral lines, ii, 170.
- structure of the hydrogen molecule ion, ii, 1105.
- Urfer, *C.* See *L. Duparc*.
- Urk, *H. W. van*, action of hydrochloric acid and of pepsin and hydrochloric acid on dissolved proteins, i, 1507.
- effect of different ammonium salts in Rothera's reaction, ii, 162.
- action of sodium nitroprusside on acetone and acetaldehyde, ii, 162.
- Urquhart, *A. R.*, and *A. M. Williams*, moisture relations of cotton. I. Taking up of water by raw and soda-boiled cotton at 20°, ii, 780.

U.

- Ucko, *H.* See *H. Bernhardt*, and *H. Zondek*.
- Ueberrack, *K.* See *F. Höglér*.
- Ueda, *H.* See *S. Komatsu*.
- Ueki, *R.*, replacement of blood by solutions containing gum arabic, i, 177.

- Urquhart, *A. R.*, and *A. M. Williams*, moisture relations of cotton. II. Absorption and desorption of water by soda-boiled cotton at 25°, ii, 780. moisture relations of cotton. III. Effect of temperature on the absorption of water by soda-boiled cotton, ii, 780. moisture relations of cotton. IV. Absorption of water by cotton mercerised without tension, ii, 781.
- Usher, *F. L.*, interaction of nitrogen sulphide and sulphur: nitrogen persulphide, ii, 581.
- Usher, *F. L.* See also *M. Iyer*.
- Uthe, *H.* See *E. Wedekind*.
- Utida, *Y.*, and *M. Saitô*, influence of metallic elements on the corrosion of iron and steel, ii, 1069.
- Utkin-Ljubovzov, *L.*, proteolytic enzymes of the liver, i, 864.
- Utkin-Ljubovzov, *X.* See *O. Step-puhn*.
- Utzino, *S.* See *P. P. von Weimarn*.
- Uzac, *R.*, lead resinsates, i, 1295.
- V.**
- Vági, *I.* See *D. Fehér*.
- Vági, *S.*, reactions for nitrates and nitrites, ii, 599.
- Vági, *S.* See also *D. Fehér*.
- Vail, *J. G.*, silicate solutions and some silicious gels, ii, 661.
- Vail, *W. E.* See *A. B. Lamb*.
- Vaillant, *P.*, electrical conductivity of solid salts at high temperatures, ii, 40. law of variation with temperature of the conductivity of solid salts, and possible relationship to the characteristic spectrum of the metal of the salt, ii, 165.
- Valasek, *J.*, dielectric anomalies in Rochelle salt crystals, ii, 23, 1118.
- Valdigué, *A.* See *J. Aloy*.
- Valentin, *J.*, and *G. Chaudron*, solidification of ternary alloys of aluminium, magnesium, and cadmium, ii, 205.
- Valk, *J. H. A. P. van der.* See *W. P. Jorissen*.
- Valkenburgh, *H. B. van*, and *J. C. Bailar, jun.*, nitrogen tetrasulphide and nitrogen tetraselenide, ii, 993.
- Valkó, *E.* See *W. Pauli*.
- Vallarta, *M. S.*, Sommerfeld's theory of fine structure [of spectral lines] from the point of view of general relativity, ii, 449.
- Valton, *P. A.*, detection of methylamine in presence of excess of ammonia, ii, 446.
- Vanderhook, *G.* See *L. A. Congdon*.
- Vandervelde, *J.* See *R. Brinkman*.
- Vandervelde, *A. J. J.*, halogenated proteins. III. Bromogluten, i, 91. halogenated proteins. IV. Bromofibrin, i, 707. halogenated proteins. V. Bromocasein, i, 1477.
- Vanino, *L.*, and *F. Herzer*, preparation of acetylsalicyloyl peroxide, i, 139.
- Vanselow, *A. P.* See *M. Randall*.
- Vanstone, *E.* [with *W. G. Messenger*], reactivity of antimony halides with certain aromatic compounds. II, i, 662.
- Vanzetti, *B. L.*, action of arsenious anhydride on alkali carbonates, ii, 421. existence of alkali ortho-arsenites, ii, 421.
- Varilla, *P. B.*, and *E. Techoueyres*, induced antiseptis: bactericidal action of sodium hypochlorite without contact with the bacteria, i, 863.
- Varma, *P. S.*, and *D. A. Kulkarni*, nitration by means of a mixture of nitrosulphonic and fuming nitric acids, i, 238.
- Vartejeanu, *E.*, determination of urea in the blood of a normal dog, i, 1113.
- Vásárhelyi, *B.* See *F. Verzár*.
- Vaucher. See *L. Ambard*.
- Vavilov, *S. J.*, extinction of fluorescence of dyes at high concentration, ii, 474. polarised fluorescence of dyes. V, ii, 739.
- Vavon, *G.*, and *A. L. Berton*, mechanism of the catalytic hydrogenation of phenols, i, 806.
- Vavon, *G.*, and *P. Peignier*, preparation of active isoborneol, i, 1079.
- Vecchiotti, *L.*, and *A. Michetti*, action of mercuric acetate on *o*-chloroaniline, i, 1058.
- Vecchiotti, *L.*, and *A. Capodacqua*, reaction between phenylhydrazine and mercuric acetate, i, 1106.
- Véchet, *J.* See *M. Battegay*.
- Vegard, *L.*, luminescence of solid nitrogen and the auroral spectrum, ii, 630.
- Vegard, *L.*, *H. K. Onnes*, and *W. H. Keesom*, emission of light by solidified gases at the temperature of liquid helium and the origin of the spectrum of the aurora, ii, 474.
- Vegesack, *A. von*, graphic representation of ternary iron-carbon alloys, ii, 535.
- Vehalgo, *M. L.* See *L. A. Congdon*.

- Veil, (Mlle.) S.**, evolution of the molecule of nickelic hydroxide in contact with water, ii, 183.
decomposition of hydrogen peroxide in presence of nickel hydroxide ii, 412.
- Vellinger, E.** See *F. Vlès*.
- Vén, J.** See *L. Moser*.
- Venable, C. S.**, plasticity as applied to viscose and artificial silk, ii, 1058.
- Venkatesachar, B.** See *E. P. Metcalfe*.
- Venn, H. J. P.**, yield of β -glucosan obtained from low-pressure distillation of cellulose, i, 887.
- Verbruggen, L.** See *P. Bruylants*.
- Verchovski, V.** See *V. Ipatiev*.
- Vercillo, A.** See *A. Mazzucchelli*.
- Verge, J.** See *L. Panisset*.
- Vergnaud, P.** See *A. Job*.
- Verkade, P. E.**, manganous salts of comenic and meconic acids; intramolecular wandering of metal atoms, i, 421.
effect of boric acid on the solubility in water and on the conductivity of γ -pyronecarboxylic acids, ii, 128.
amendment to the Lyons decisions (1922) regarding the thermochemical standard substance, ii, 871.
- Verkade, P. E.**, and *J. Coops*, calorimetric researches. VI. Determination of heat of combustion of salicylic acid; proposed adoption of this substance as secondary standard in calorimetry, ii, 39.
- Verkade, P. E.**, *J. Coops, jun.*, and *H. Hartman*, molecular heat of combustion of successive terms of homologous series, ii, 364.
calorimetric researches. VIII. The paraffin oil method: an aid in the determination of the heats of combustion of difficultly combustible and hygroscopic substances, ii, 490.
- Verley, A.**, [oxidation of eugenol, methylheptenone, and citral with ozone], i, 406.
exchange of functional groups between two molecules; passage of the alcoholic function into the aldehydic function and inversely, i, 783.
exchange of functional groups between two molecules; passage of alcoholic into ketonic groups and inversely, i, 1034.
- Verley, A.**, and *(Mlle.) J. Beduwé*, general method of preparation of substituted indoles, i, 578.
- Vermelin, H.** See *P. Lasseur*.
- Vernadski, V.**, representation of the chemical composition of living matter, i, 606.
distribution of the chemical elements in the earth's crust, ii, 996.
hydrogen sulphide in limestone and dolomite, ii, 997.
- Verney, E. B.** See *E. H. Starling*.
- Vernon, C. C.** See *H. Gilman*.
- Vernon, W. S.** See *H. E. Buckley*.
- Verzár, F.**, and *B. Várhelyi*, carbon dioxide content of capillary blood and its determination, i, 178.
- Vesely, V.**, and *L. K. Chudožilov*, reduction of aromatic nitro derivatives by means of sulphides, i, 654.
preparation of isonuclear bromonitronaphthalenes from corresponding derivatives of tetrahydronaphthalene [tetralin], i, 1056.
- Vesely, V.**, and *J. Kapp*, nitro derivatives of 2-methylnaphthalene, i, 246, 804.
- Vesterberg, K. A.**, α -paltreubyl alcohol, an inactive form of β -amyrin, i, 1062.
- Vesterberg, K. A.**, and *E. Borge*, terpenes, phytosterols, and resins. III. Pyrogenic decomposition of abietic acid, i, 252.
- Vesterman, A.** See *V. Grignard*.
- Vickery, H. B.**, nitrogenous constitution of the juice of the alfalfa [lucerne]. IV. Betaine fraction, i, 1370.
- Vickery, H. B.**, and *C. S. Leavenworth*, nitrogenous constituents of the juice of the alfalfa [lucerne]. III. Adenine in alfalfa, i, 873.
- Vickery, H. B.**, and *C. G. Vinson*, nitrogenous constituents of the juice of the alfalfa [lucerne]. V. Basic lead acetate precipitate, i, 1370.
- Vidie, E.** See *O. Ruff*.
- Viel, E.** See *E. Caille*.
- Viel, J. E.** See *C. Dufraisse*.
- Vieweg, W.**, action of aqueous and aqueous-alcoholic solutions of sodium hydroxide on cellulose, i, 12.
absorption of sodium hydroxide by cellulose from solutions, i, 119.
- Vigneaud, V. du.** See *C. S. Marvel*.
- Vila, A.**, reduction of sulphuric acid to hydrogen sulphide, ii, 148.
- Vilbrandt, F. C.**, elimination of surface devitrification on laboratory quartz-ware, ii, 1091.
- Vilon, E.** See *E. Carrière*.
- Vilsmeier, A.** See *O. Fischer*.
- Vincent, G. P.**, potassium dichromate as depolariser, ii, 882.

- Vincent, P. D.**, effect of treatment with sulphuric acid on the breaking load of cotton, ii, 783.
- Vinney, S. S. de.** See *L. R. Ingersoll*.
- Vinogradski, S.**, measurement of the nitrogen-fixing capacity of soils, i, 623.
soil microbiology, i, 765.
- Vinson, C. G.** See *H. B. Vickery*.
- Vio, W.** See *F. X. Erben*.
- Viol, C. H., G. D. Kammer, and A. L. Miller**, decay and regeneration of radio-luminescence, ii, 474, 1117.
- Virli, G.** See *F. Zetzsche*.
- Virtanen, A. I.**, insulin, i, 753.
lactic acid fermentation. I., i, 866.
influence of colloids in the reductase test, ii, 76.
- Visco, S.**, enzymes present in the latex of *Ficus carica*. I. Esterases, i, 471.
- Visscher, M. B.**, nature of the sugar in blood, i, 1343.
- Visser, J. C. S. de.** See *G. Hertz*.
- Vita, N.** See *M. Padoa*.
- Vitale, C.** See *G. Charrier*.
- Viterbi, E.**, ultra-violet absorption of aqueous potassium permanganate solutions, ii, 352.
- Vitha, J.** See *J. Frejka*.
- Vitkovski, D. P.** See *A. E. Tschitschibabin*.
- Vivario, R.** See *A. Desgrez*.
- Vixseboxse, H.**, influence of solvent on the equilibrium of isomerides, ii, 396.
- Vlădescu, R.**, determination of chloride in animal tissue, i, 1113.
inorganic phosphates in milk, i, 1114.
- Vleck, J. H. van**, specific heat of an elastic gyroscopic model of the hydrogen molecule, ii, 1138.
- Vlăs, F.**, spectrophotometric determination of p_H , ii, 595.
- Vlăs, F., and (Mlle.) M. Gex**, ultra-violet absorption as a function of p_H of some organic acids, considered as ultra-violet indicators, ii, 472.
behaviour of benzene in aqueous solutions; ultra-violet absorption as a function of p_H , ii, 1115.
- Vlăs, F., and E. Vellinger**, physico-chemical properties of gelatin; rotatory power, ii, 292.
variations in the rotatory power of tartaric acid as a function of p_H , ii, 356, 964.
hydrogen electrode, ii, 817.
- Vlăs, S. I.** See *W. Reinders*.
- Voegtlin, C., H. A. Dyer, and C. S. Leonard**, specificity of the so-called arsenic receptor in the higher animals, i, 861.
- Voegtlin, C., J. M. Johnson, and H. A. Dyer**, reducing power of normal and cancer tissue, i, 99.
protoplasmic action of copper and gold, i, 1116.
- Voegtlin, C., J. W. Thompson, and E. R. Dunn**, hyperglycemia produced by glycerol, i, 1211.
- Voeller, F.** See *R. Anschütz*.
- Voge, C. I. B.** See *W. O. Kermack*.
- Vogel, F.** See *H. Niklas*.
- Vogel, I.**, constitution of the thionic acids, ii, 1189.
- Vogel, I., and J. R. Partington**, sulphur sesquioxide, ii, 890.
- Vogel, I.** See also *A. Ferguson*.
- Vogel, L.** See *L. Kalb*.
- Vogel, R.**, structure of iron-nickel meteorites, ii, 709.
- Vogel, W.**, nitrosomethylurethane as a reagent for pyrocatechol tannins, ii, 827.
- Vogler, H.** See *P. P. Koch*.
- Vogt, A.** See *S. Goldschmidt*.
- Vogt, M.** See *E. Mislowitzer*.
- Voigt, A.** See *R. Lorenz*.
- Voit, K.** See *R. Feulgen*.
- Volbert, F.** See *H. Ley*.
- Vollenbruck, O.** See *O. Bauer*.
- Vollmann, H.**, colloid-chemistry of linseed oil, ii, 517.
- Vollmer, H., W. Schmidt, and J. Serebrijski**, anti-lipolytic effect of iodine, i, 335.
- Volmar**, photolysis of ethylenic dibasic acids, i, 1378.
photolysis of dibasic acids, ii, 575.
- Volmer, M.**, thermodynamic deductions from the equation of state for adsorbed substances, ii, 539.
- Volmer, M., and P. Kirchhoff**, vapour pressures of solid and liquid benzophenone between 0° and 48°, ii, 494.
- Volmer, M., and P. Mahnert**, solution of solids in liquid surfaces, and the properties of the resulting films, ii, 508.
- Volmer, T.**, slow corpuscular radiations from salts, ii, 7.
- Voltolin, P. M.** See *L. Cambi*.
- Volwiler, E. H.**, alkylallylbarbituric acids, i, 1173.
- Volwiler, E. H.** See also *R. Adams*.
- Vonaesch, F.** See *H. Rupe*.
- Vondraček, R., and J. Izák-Krizko**, influence of impurities in zinc on its solubility in acids, ii, 686.
- Voorhees, V., and G. S. Skinner**, derivatives of barbituric acid, i, 837.
- Voorhis, C. C. van**, diffusion of helium through different glasses, ii, 1143.
- Voorhis, C. C. van.** See also *K. T. Compton*.

- Vorländer, D.** [with *K. Büchner, E. Spreckels, E. Schroedter, O. Meissner, F. Caesar, E. Fischer, Walter König, and H. Hoffmann*], conception of internal molecular strain and the directing of substituents in benzene, II., i, 1255.
- Vorländer, D.** [with *H. Hiemesch, K. Schoenemann, W. Schade, and K. Kunze*], acid, salt, ester, and adduct, i, 267.
- Vorländer, D., and K. Büchner**, fission of *p*-iodoxynitrobenzene by alkali hydroxide, i, 1055.
- Vorländer, D., Ernst Fischer, and K. Kunze**, ϵ -phenyl- Δ^{88} -pentadien- α -al and η -phenyl- Δ^{88} -heptatrien- α -al, i, 1068.
- Vorländer, D., and K. Kunze**, green modification of *pp'*-dihydroxyazobenzene, i, 1106.
- Vorländer, D., W. Selke, and S. Kreiss**, doubly-refractive white phosphorus, ii, 1086.
- Vorländer, D., and R. Walter**, double refraction of amorphous liquids and molecular constitution, ii, 183.
- Vortmann, G.**, generally applicable method of conducting an elementary organic analysis by the wet way, ii, 827.
- Vosburgh, W. C.**, conditions affecting the reproducibility and constancy of Weston standard cells, ii, 672.
- decrease in electromotive force of unsaturated Weston cells, ii, 1066.
- saturated standard cell with small temperature coefficients, ii, 1164.
- Vosnessenski, S.**, thermodynamic potential difference at the boundary of two liquid phases, ii, 673.
- Voswinckel, H.**, preparation of dyes, i, 572.
- Votoček, E., and P. Jirů**, halogenated aromatic hydrazines. I. 3:4-Dibromophenylhydrazine, i, 317.
- Votoček, E., and R. Lukes**, oxidation of the sugar alcohols from the stereochemical point of view, i, 773.
- Vrevski, M.**, equilibrium between vapour and liquid of aqueous solutions of ammonia, ii, 102.
- equilibrium between liquid and gaseous phases of aqueous solutions of hydrogen chloride and of hydrogen bromide, ii, 102.
- specific heats of aqueous solutions of hydrogen chloride and ammonia at various temperatures, etc. I.-V., ii, 126.
- Vrevski, M., and A. Kaigorodov**, specific heats of aqueous solutions of hydrogen chloride and ammonia at various temperatures, ii, 125.
- Vrevski, M., and N. Savaritzki**, heats of formation of aqueous solutions of hydrogen chloride and ammonia at different temperatures, ii, 126.
- Vrevski, M., N. Savaritzki, and L. Scharlov**, determination of the vapour pressures and of the composition of the vapour phases in equilibrium with aqueous solutions of hydrogen chloride and hydrogen bromide at different temperatures, ii, 101.
- Vries, T. de.** See *W. H. Rodebush*.
- Vrtiš, M.**, trivalent copper, ii, 694.
- Vürtheim, A.**, determination of potassium in potassium salts as perchlorate, ii, 437.
- Vuillaume, M.** See *A. Boutaric*.
- Vuilleumier, E. A.**, determination of acetone in presence of alcohol by a vapour pressure method, ii, 246.
- Vyle, L. R., and F. S. Kipping**, organic derivatives of silicon; action of mercuric oxide on diaryldichlorosilanes, i, 172.

W.

- Waard, R. H. de**, Weiss's theory of ferromagnetism, ii, 751.
- Wache, X., and G. Chandon**, influence of thermal and mechanical treatment on the rate of dissolution of aluminium in hydrochloric acid, ii, 687.
- Wachendorff, E.** See *E. Berl*.
- Waddell, J.** See *E. B. Hart*.
- Wade, F. B.**, detection of traces of iodides, ii, 598.
- Waele, A. de**, alteration of viscosity of disperse systems with the velocity of shear, ii, 777.
- Waelsh, E.**, calculation with pole-systems: crystal groups and crystal dynamics, ii, 485.
- Waelzel, O.**, determination of hydrofluoric acid, ii, 433.
- Wagenhofer, A.**, *p*-orsellinic acid, i, 550.
- Wagler, K.** See *F. Hein*.
- Wagner, C.**, mechanism of the oxidation of the iodine ion by the ferricyanide and ferric ion, ii, 49.
- surface tension of dilute electrolytes, ii, 387.
- calculation of reaction velocity coefficients, ii, 406.
- influence of temperature on reaction velocity in solution, ii, 407.

- Wagner, C.**, Trouton's rule as a criterion of association, ii, 762.
- Wagner, C.** See also *K. Täufel*.
- Wagner, E., K. F. Meyer, and C. C. Dozier**, metabolism of *Bacillus botulinus*. XXVI, i, 1510.
- Wagner, E. C.**, evaluation of chlorates, ii, 1196.
- Wagner, R.** See *W. Hieber*.
- Wagner, W.**, experiments with the local anæsthetics psicaine and tutocaine, i, 1503.
- Wagner-Jauregg, T.** See *R. Kuhn*.
- Wahl, A.**, preparation of esters, i, 880.
- Wahl, A., and T. Faivret**, derivatives of 7-methylisatin, i, 588.
- Wahl, A.** See also *R. Lantz*.
- Wahl, A. R.** See *Société Anonyme des Matières Colorantes, et Produits Chimiques de St. Denis*.
- Wahl, R.** See *E. Cherbuliez*.
- Wahl, W. A.**, valency relations of boron, carbon, and nitrogen from the standpoint of the Bohr atomic model, ii, 937.
- problems of boron chemistry, ii, 938.
- Wahlin, C. S.** See *A. Biester, and J. J. Willaman*.
- Wahlin, H. B.**, mobilities of the positive ions in helium, ii, 170.
- relative mobility of initial positive ions in gas mixtures at low pressures, ii, 615.
- Waibel, F.** See *C. Fächtbauer*.
- Waksman, S. A.**, what is humus? i, 1528.
- Waksman, S. A., and S. Lomanitz**, decomposition of proteins and amino-acids by various groups of micro-organisms, i, 867.
- Walcker, R.** See *R. Schwarz*.
- Waldbauer, L. J.** See *O. Maass*.
- Walden, P.**, fifty years of stereochemical theory and investigation, i, 349.
- Walden, P., and H. Ulich**, conductivity determinations in non-aqueous salt solutions, ii, 209.
- Walden, P., H. Ulich, and F. Laun**, electrical conductivity measurements in dilute methyl- and ethyl-alcoholic solution at 0°, 25°, and 56°, ii, 208.
- Walden, P., H. Ulich, and O. Werner**, dielectric constants of solutions of electrolytes. I. and II., ii, 512, 773.
- Waldie, (Miss) A. T.**, impact experiments in compound gases; ammonia, ii, 1106.
- Waldmann, E.** See *K. Dziewoński*.
- Waldmann, H.** See *G. Weissenberger*.
- Waldschmidt-Leitz, E., and A. Hartenech**, tryptic and ereptic activity of the pancreas, i, 1360.
- Waldschmidt-Leitz, E., and A. Schaffner**, specific nature of animal proteases. I. Importance of diketopiperazines in the synthesis of proteins, i, 1110.
- Waldschmidt-Leitz, E., and F. Seitz**, rôle of oxygen in catalytic hydrogenation by means of platinum, ii, 411.
- Waldschmidt-Leitz, E.** See also *R. Willstätter*.
- Wales, H.** See *O. A. Nelson, and S. Palkin*.
- Walker, A. C.** See *J. Johnston*.
- Walker, A. J.** See *F. D. Chattaway*.
- Walker, E.**, oxidations in turpentine and olive oil, i, 990.
- Walker, G. H., and I. M. Heilbron**, styrylbenzopyrylium salts. IV. γ -Styryl derivatives of 5:7-dihydroxy- and 5:7-dimethoxy-2-phenyl-4-methylbenzopyrylium chlorides, i, 693.
- Walker, G. H.** See also *W. H. Cooke, and I. M. Heilbron*.
- Walker, H.**, influence of different substances on the diastatic activity of saliva, i, 738.
- Walker, J. C., C. C. Lindegren, and F. M. Bachmann**, toxicity of juice extracted from succulent onion scales, i, 872.
- Walker, M., and D. N. Eldred**, decomposition of liquid hydrocyanic acid, i, 1393.
- Walker, O. J.**, solubility of bi-bivalent salts in solutions containing a common ion, ii, 769.
- Walker, T. K.**, synthesis of arylazoaloximes, i, 1193.
- the preservative principles of hops, i, 1479.
- Walker, T. R.**, nomenclature of the hop resin constituents, i, 1479.
- Walker, W. B.**, colorimetric determination of small amounts of iron, ii, 717.
- Walker, W. J.**, critical pressure-ratio for gases as affected by variable specific heat, ii, 100.
- Walker, W. M., J. H. Sorrels, and J. M. Breckenridge**, potentials of copper and zinc in cyanide solutions, ii, 1066.
- Wallach, G.** See *A. Smits*.
- Walter, E.**, wave-length and width of the K-absorption limit of zinc, ii, 611.
- Walter, O.**, enzyme dialysis, i, 1357.
- decomposition of arginine in *Lupinus luteus* by means of enzymes, i, 1358.
- Walter, R.** See *D. Vorländer*.

- Walters, F. M., jun.**, regularities in the arc spectrum of cobalt, ii, 334.
regularities in the arc spectrum of nickel, ii, 335.
- Walters, F. M., jun.** See also *W. F. Meggers*.
- Walters, J. E.**, and *A. G. Loomis*, cryostat for precision measurements at temperatures extending to -180° , ii, 1091.
- Walters, W.** See *J. P. Bowler*.
- Walther, T.** See *L. Dede*.
- Walton, J. H.**, and *R. V. Wilson*, equilibrium in the system, carbamide-methyl alcohol, i, 505.
- Wander, G.** See *O. A. Oesterle*.
- Wang, C.** See *W. R. Orndorff*.
- Wang, C. C.**, and *A. R. Felsher*, effect of hemolysis on the calcium and inorganic phosphorus content of serum and plasma, i, 995.
- Wang, D. G.** See *M. Nierenstein*.
- Wangler, J. G.** See *S. L. Jodidi*.
- Wankell, F.** See *E. Boden*.
- Wanner, E.**, influence of methyl and sulphonic acid groups as well as other substituents on the colour of azo dyes, i, 841.
- Warburg, E.**, theory of chemical action in Siemens ozone tubes, ii, 706.
quantum laws in photochemistry, ii, 984.
- Warburg, E.**, and *W. Rump*, production of ozone by silent discharge at low pressures, ii, 706.
- Warburg, O.**, method of measuring respiration and glycolysis, i, 321.
[mechanism of oxidation processes], i, 374.
iron, the oxygen-carrying component of the oxidative enzyme, i, 471.
metabolism of carcinoma cells, i, 1206.
iron, the oxygen-carrier of respiration-ferment, i, 1481.
lactic acid formation during growth, i, 1492.
- Warburton, F. W.**, and *F. K. Richtmyer*, X-ray absorption coefficients in the neighbourhood of *K*-limits, ii, 1103.
- Ward, A. M.** See *G. Senter*.
- Ward, L. A.** See *N. A. Lange*.
- Wardlaw, W.**, and *F. H. Nicholls*, molybdenum pentoxide, ii, 817.
- Wardlaw, W.**, and *W. H. Parker*, compounds of tervalent molybdenum. III. Oxalates, i, 893.
- Wardlaw, W.**, and *R. L. Wormell*, compounds of tervalent molybdenum. II. Molybdenum monochloride, ii, 61.
- Ware, A. H.**, detection of plant phenols by the use of nitrites or nitric acid, i, 1122.
use of Mitchell's ferrous tartrate reagent in qualitative analysis, ii, 444.
modifications of the ferric citrate precipitation test for tannins, ii, 905.
identification of drugs containing tannins, ii, 1209.
- Waris, G.**, equilibrium in the ternary system, bismuth oxide, hydrochloric acid, water, ii, 786.
- Warkany, J.**, behaviour of the reserve carbohydrate of yeast in assimilation and dissimilation, i, 105.
- Warnat, K.** See *A. Skita*.
- Warr, J. C.** See *M. Nierenstein*.
- Wartenberg, H. von**, ozone from flames, ii, 147.
osmium tetroxide, ii, 231, 276.
chemistry of high temperatures, ii, 576.
action of some gases on silicates, ii, 699.
- Wartenberg, H. von**, and *G. von Podjaski*, ozone [determination and solubility], ii, 1198.
- Wartenberg, H. von**, and *Lerner-Steinberg*, heat of formation of formaldehyde, ii, 745.
- Wartenberg, H. von**, and *D. Weigel*, dissociation of chlorine, ii, 668.
- Waser, E.**, catalytic hydrogenation with hydrogen and platinum, i, 584.
- Waser, E.**, and *K. Sander*, oxalic acid as an agent for splitting off alcohol groups, i, 536.
- Washington, H. S.**, radial distribution of certain elements in the earth, ii, 234.
chemical composition of the earth, ii, 591.
- Washington, H. S.** See also *F. W. Clarke*, and *R. W. G. Wyckoff*.
- Wasser, E.**, photo-electric effect for submicroscopic mercury drops, ii, 80.
effect of adsorption of gases on the density of mercury droplets, ii, 80.
- Wassermann, A.** See *R. Kuhn*.
- Wasteneys, H.**, and *H. Borsook*, fractional analysis of incomplete protein hydrolysates, i, 97.
enzymic synthesis of protein. I. Synthesising action of pepsin, i, 102.
enzymic synthesis of protein. III. Effect of pH on peptic synthesis, i, 472.
enzymic synthesis of protein. V. Synthesising action of trypsin, i, 865.

- Wasteneys, H.** See also *H. Borsook*.
Wastl, H. See *L. Berzeller*.
Watase, T. See *S. Mitsukuri*.
Waterman, H. I., and J. N. J. Perquin, decomposition of paraffin wax at 450° in presence and in absence of hydrogen under high pressure, i, 1125.
Watkins, H. R. See *S. Palkin*.
Watson, D. L., thermal decomposition of derivatives of ethyl oxalacetate; a unimolecular reaction, ii, 556.
Watson, E. C. See *J. A. Becker*.
Watson, F. S. See *J. B. Firth*.
Watson, H. B., reaction of bromine with aliphatic acids; catalytic effect of acyl halides, i, 1232.
Watson, H. E. See *B. S. Bao, and J. J. Sudborough*.
Watson, W. H., absorption of superposed X-radiations, ii, 458.
Watson, W. H. See also *S. R. Khastgir*.
Watson, W. W., emission spectrum of water vapour, ii, 349.
Watt, J. S., mobility of negative ions in flames by the Hall effect method, ii, 170.
Wattiez, N., presence of β -methylglucoside in the leaves of *Scabiosa succisa*, L. (*Dipsacae*), i, 1521.
Wayman, M. See *J. Howard Mueller*.
Wayne, E. J., and J. B. Cohen, addition of ethyl malonate to anils, i, 550.
Weatherby, L. S., L. McIlvaine, and D. Matlin, butyryn, i, 1128.
Weatherill, P. F., atomic weight of antimony, ii, 23.
 filling mercury manometers, ii, 896.
Weaver, S. D. See *C. K. Ingold*.
Webb, T. J., third law of thermodynamics and calculation of entropies, ii, 867.
Weber, A. P., suitability of the Seemann "edge-method" for measurements of X-ray standards, ii, 458.
 non-existence of the Clark-Duane secondary spectra from faultless crystals, ii, 1034.
Weber, B. See *G. Jander*.
Weber, C. J. See *W. C. Rose*.
Weber, E. See *K. Freudenberg*.
Weber, F., effect of cold rolling on structure of cubic crystals, ii, 93.
Weber, F. See also *P. Karrer*.
Weber, G. See *H. John, and R. Kremann*.
Weber, H. See *F. Auerbach*.
Weber, H. H., colloidal characteristics of muscle proteins. I. Isoelectric point and stability of myogen. II. Isoelectric point and solubility of myosin, i, 995.
Weber, J., significance of ions in muscular function. VIII. Action of different alkali salts on the fermentative breakdown of glycogen in frog's muscle pulp, i, 1004.
Weber, J. See also *H. Meerwein*.
Webster, D. L., and P. A. Ross, Compton effect, ii, 92.
 Compton effect with hard X-rays, ii, 1034.
Webster, D. L. See also *P. A. Ross*.
Webster, E. R. See *R. C. Frederick*.
Webster, L. T., acid agglutination of mixtures of oppositely charged bacterial cells, i, 749.
Webster, T. A., L. Hill, and A. Eidinov, measurement of ultra-violet light by means of an acetone methylene-blue solution, i, 750.
Webster, T. A. See also *J. C. Drummond*.
Webster, W. L., magnetic properties of iron crystals, ii, 369.
Wecher, E. J. See *V. Lenher*.
Weckering, A. See *A. Dewael*.
Wedekind, E., asymmetric nitrogen atom. LIII. Activation problem in the case of quaternary ammonium bases with a double linking at the nitrogen atom, i, 678.
 relations between chemical constitution and camphor-like physiological action in compounds not of the camphor series, i, 684.
Wedekind, E., M. Müller, and C. Weinand, action of triethylamine on adipyl and β -methyladipyl chlorides, i, 510.
Wedekind, E., and H. Uthe, asymmetric nitrogen atom. LIV. Dependence of the rate of decomposition of an optically active aminoammonium nitrate on the presence of primary, secondary, and tertiary amines, i, 536.
 asymmetric nitrogen atom. LIV. Function of solvate formation in the decomposition of asymmetric amine-ammonium salts, i, 1059.
Weeks, E. J., production of antimony hydride (stibine) at an antimony cathode in alkaline solution. II. and III., ii, 415, 882.
 formula of cerium hydride, ii, 1186.
Weeks, E. J., and J. G. F. Druce, solid antimony hydride, ii, 700.
 bismuth dihydride, ii, 988.
 bismuth trihydride and silver bismuthide, ii, 1188.
Weeldenburg, J. G., determination of nickel by means of dimethylglyoxime in presence of iron and cobalt, ii, 72.

- Wegner, A.** See *W. Herz.*
Wegner, W. See *E. Rupp.*
Wegscheider, R., kinetics of coupled reactions, ii, 47.
Wehmer, C., conversion of lignin, cellulose, and wood into humic substances by fungi, i, 521.
 supposed poisonous action of carbon monoxide on green plants, i, 1029.
Wehrmann, O. See *A. Gehring.*
Weidemann, A. W. See *M. M. McCool.*
Weidemann, G. See *E. Poulsson.*
Weidnerpass, N., Estonian oil of peppermint, i, 687.
Weigel, D. See *H. von Wartenberg.*
Weigel, O., properties and occurrence of zeolites, ii, 709.
Weigert, F., and L. Brodmann, confirmation of Einstein's law of the photochemical equivalent in a very simple photochemical reaction, ii, 1075.
Weigert, F., and G. K  ppler, polarised fluorescence in solutions of dyes, ii, 1026.
Weigl  , J. J., heat of evaporation of electrons, ii, 253.
Weigl  , J. J. See also *C. E. Guye.*
Weil, H., and M. Adler, boric acid compounds of pyrocatechol, i, 136.
Weil, R., microscopic study of the $\alpha\beta$ -transformation of natural cristobalite, ii, 757.
 synthesis of cristobalite in the wet way, ii, 1193.
Weil, S., local anaesthetics, i, 157.
Weil, S. See also *M. Grabowska.*
Weimarn, P. P. von, dispersoid synthesis of gold. II., ii, 196.
 stability of dispersoid silver solutions, ii, 198.
 colloidal sugar. I. and II., ii, 290, 390.
 jelly state of matter. I., ii, 390.
 disperse systems, giving all the spectrum colours in order on temperature changes, ii, 390.
 connexion between the dispersion process and the production of chemical compounds, ii, 395.
 dispersoid study of cellulose, ii, 515.
 general structure of matter in the colloidal state. I. Form and chemical composition of disperse particles in suspensions and precipitates, ii, 660.
 dispersion of different kinds of cellulose by mechanical means and by the action of aqueous salt solutions, ii, 782.
Weimarn, P. P. von, precipitates with stratified structures. I., ii, 959.
 influence of added substances on the life of dispersoids. I., ii, 969.
 structure of true solutions and the nature of the changes occurring therein, ii, 1055.
 precipitation laws, ii, 1064.
Weimarn, P. P. von, and S. Utzino, effect of added substances on the stability of dispersoids. II., ii, 664.
Wein, W. See *W. Biltz.*
Weinand, C. See *E. Wedekind.*
Weinberg, M., spark-spectra of indium and gallium in the extreme ultra-violet region, ii, 249.
Weinmann, F. See *M. Bergmann.*
Weinstock, M. See *A. F. Hess.*
Weir, A. B., coagulation of a colloidal solution by hydrogen ions, ii, 1155.
Weir, J. F., thyroxin and tryptophan content of the diseased thyroid gland, and the iodine compounds in desiccated thyroid, i, 1491.
Weiser, H. B., adsorption by precipitates, ii, 108.
 adsorption and Schulze's law, ii, 855.
Weiss, H., application of X-rays to the study of alloys, ii, 940.
Weiss, H. See also *R. Schwarz.*
Weiss, R., and E. Freund, action of organo-magnesium compounds on phthalonitrile. I., i, 139.
Weiss, R., and J. Korezyn, triphenylmethane compounds with linked benzene nuclei. I. Trimethylenetriphenylmethane triketone, i, 560.
Weiss, R., and L. Sonnenschein, *o*-phenylacetyldeoxybenzoin, its conversion into substituted naphthalenes and attempted preparation of further *o*-phenylene derivatives, i, 937.
Weiss, S. See *J. Holl  .*
Weissbach, H. See *C. Drucker.*
Weissberg, M. See *M. Kohn.*
Weissenberg, K., crystal structure and chemical constitution. I. Transformation properties of matter, ii, 1129.
 crystal structure and chemical constitution. II. Structural theory of crystals, ii, 1129.
 crystal structure and chemical constitution. III. Analysis of crystal structure, ii, 1130.
Weissenberg, K. See also *R. O. Herzog.*
Weissenberger, G., and L. Piatti, molecular compounds of phenols. I. Behaviour of the cresols towards alcohol, ether, and acetone, i, 538.

- Weissenberger, G.**, and **L. Piatti**, molecular compounds of phenols. II. Behaviour of cresols towards aromatic hydrocarbons, i, 539.
- Weissenberger, G.**, and **F. Schuster**, molecular compounds of phenols. III. Behaviour of binary systems with hydrogenated phenols, ii, 648.
- molecular compounds of the phenols. V. Vapour pressure curves, ii, 765.
- Weissenberger, G.**, **F. Schuster**, and **N. Mayer**, molecular compounds of phenols. VI. Behaviour of the naphthols, the *ar*-tetrahydronaphthols, and related substances, ii, 766.
- Weissenberger, G.**, **F. Schuster**, and **K. Schuler**, molecular compounds of phenols. IV. Binary systems with phenol and its ethers, ii, 649.
- Weissenberger, G.**, and **H. Waldmann**, adsorption from viscous media by charcoal, ii, 655.
- Weitz, E.**, preparation of oxidoketones, i, 408.
- solubility of ammonium salts in presence of ammonia, ii, 1147.
- Weitz, E.**, and **Herbert Müller**, action of ammonia on aqueous solutions of ferrous salts, ii, 317.
- Welker, W. H.**, fractionation of the proteins of rattlesnake venom, i, 998.
- Welker, W. H.** See also **L. Hektoen**.
- Wellcome Foundation, Ltd.**, and **W. H. Gray**, therapeutic compound [sodium *p*-aminophenylstibinate glucoside], i, 991.
- Wellcome Foundation, Ltd.**, **W. H. Gray**, and **T. A. Henry**, therapeutic compounds [esters of benzoyl-*L*-ecgonine and similar compounds], i, 1446.
- Wellcome Foundation, Ltd.**, **T. A. Henry**, and **T. M. Sharp**, therapeutic compounds [mercuri compounds of phenols], i, 1154.
- Welling, W. F.** See **O. L. Brady**.
- Wells, A. H.**, and **F. Garcia**, chemical and pharmacodynamic investigation of *Strophanthus lelei*, Merrill, i, 614.
- Wells, A. W.** See **D. K. Tressler**.
- Wells, R. C.**, reaction between ferrous salts and cuprous salts, ii, 148.
- Welo, L. A.**, magneton numbers of iron in some complex salts, ii, 943.
- Welo, L. A.**, and **O. Baudisch**, two-stage transformation of magnetite into haematite, ii, 845.
- valency theories and the magnetic properties of complex salts, ii, 1031.
- Welo, L. A.**, and **O. Baudisch**, catalytically active and inactive forms of ferric oxide, ii, 1071.
- Welo, L. A.** See also **O. Baudisch**.
- Weltmann, O.** See **H. K. Barrenscheen**.
- Weltzien, W.**, ethers of polysaccharides with hydroxy-acids, i, 12.
- Weltzien, W.** See also **K. Hess**.
- Wendehorst, E.**, colorimetric determination of molybdenum, ii, 718.
- Wendehorst, E.** See also **G. Jander**.
- Wendlandt, R.**, detonation limits of gaseous mixtures, ii, 135.
- detonation limits in explosive gas mixtures, ii, 801.
- Wendt, G. L.**, and **M. Farnsworth**, equilibrium of carbon dioxide with carbon monoxide and oxygen in the corona discharge, ii, 1158.
- Wengefeld, E.** See **A. Kurtenacker**.
- Wenger, P.**, and **M. Müller**, separation of zirconium from iron, ii, 1207.
- Wenger, P.** See also **L. Duparc**.
- Wenner, W.** See **K. Freudenberg**.
- Wentzel, G.**, complex structure of Röntgen-spark spectra, ii, 251.
- the term problem of doublet spectra, with particular reference to X-ray spectra, ii, 728.
- Wenzel, E.** See **R. Willstätter**.
- Werner, G.**, calculations for and calibration of the Haber-Löwe gas interferometer, ii, 1091.
- Werner, H.** See **H. Schmalzfuss**.
- Werner, O.** See **G. Klein**, and **P. Walden**.
- Werner, S.**, excitation of spark spectra, ii, 165.
- spark spectrum of lithium, ii, 1013.
- Wertheimer, E.**, kinetic and electromagnetic definition of the thermodynamic temperature of a gas, ii, 784.
- Wertheimer, E.**, and **H. Paffrath**, permeability and physiological action of compounds of the choline group, i, 1211.
- Weesly, W.** See **A. Schleicher**.
- Wesolowski, W. A.** See **F. O. Rice**.
- Wessel, W.**, evaluation of the grating energy of crystals, ii, 640.
- surface potential in solutions of inorganic electrolytes, ii, 795.
- Wessel, W.** See also **H. Lindemann**.
- Wessely, F.**, anhydrides of *N*-carboxylic derivatives of α -amino acids, i, 1151.
- Wesson, L. G.**, relationship of arachidonic acid to saturated fatty acids in metabolism, i, 1353.
- West, E. S.**, interference of ammonia with the hypochlorite reaction for aniline, ii, 163.
- West, J.** See **W. Mandell**.

- West, R. M.** See *J. J. Willaman*.
- West, R. W.**, quantitative reduction by hydriodic acid of halogenated malonyl derivatives. IV. Influence of substitution in the amide group on the reactivity of the halogen atom in bromomalonamide, i, 524.
reduction of aromatic nitro compounds, i, 535.
- West, W.**, and *E. B. Ludlam*, ionisation of iodine vapour by ultra-violet light, ii, 476.
- West, W.** See also *E. B. Ludlam*.
- Westgarth, G. C.** See *W. N. Haworth*.
- Westgren, A.**, and *G. Phragmén*, structure of alloys, ii, 502.
X-ray analysis of copper-zinc, silver-zinc, and gold-zinc alloys, ii, 746.
crystal structure of manganese, ii, 1035.
- Westling, G.** See *H. von Euler*.
- Weston, F. R.**, flame spectra of carbon monoxide and water-gas. I., ii, 928.
- Westphal, W.**, equilibrium between radiation and matter, ii, 926.
- Wettstein, H.** See *W. Manchot*.
- Wetzel, J.**, mercury distillation apparatus, ii, 589.
- Wetzel, M.** See *H. Schmalfuss*.
- Wever, F.**, constitution of technical iron, ii, 503.
- Weygand, C.**, and *L. Frieling*, simplest *O*-alkyl ethers of benzoylacetone and phenylmethylisooxazole, i, 1288.
- Whalen, H. F.**, and *L. W. Jones*, action of hydroxylamine on sulphinic acids and their derivatives, i, 802.
- Whalen, H. F.** See also *L. W. Jones*.
- Wheatley, A. H. M.** See *R. V. Stanford*.
- Wheatley, J. H.**, martensite and troostite, ii, 488.
- Wheeler, A. S.**, and *R. W. Bost*, 4-*p*-tolylsemicarbazide and certain derivatives, i, 317.
- Wheeler, A. S.**, and *F. P. Brooks*, action of phenylsemicarbazide on acetylacetone, i, 1459.
- Wheeler, A. S.**, and *C. R. Harris*, occurrence of borneol in spruce turpentine, i, 1437.
- Wheeler, A. S.**, and *M. Morse*, chlorination of *p*-xylydine, and certain new azo dyes, i, 22.
- Wheeler, R. V.**, ignition of gases. V. Ignition by induction sparks; mixtures of the paraffins with air, ii, 403.
- Wheeler, R. V.** See also *O. C. de C. Ellis*, *W. Francis*, *V. H. Legg*, and *F. V. Tideswell*.
- Whelan, M.**, effect of intravenous injection of inorganic chlorides on composition of blood and urine, i, 860.
- Whetham, M. D.** See *J. H. Quastel*.
- Whiston, J. R. H.**, preparation of 4-chloro-6-nitro-*m*-anisidine, i, 136.
preparation of naphthalic acid by oxidation of acenaphthaquinone, i, 140.
preparation of isodiphenetidinc, i, 156.
- Whitaker, H.**, physical properties of nacreous sulphur, ii, 486.
purification of phosphoric oxide, ii, 1195.
- Whitby, G. S.**, and *G. L. Matheson*, heavy-metal salts of disubstituted dithiocarbamic acids, i, 644.
- Whitby, G. S.** See also *A. D. Macallum*.
- White, A. C.** See *C. P. Stewart*.
- White, A. G.**, limits for the propagation of flame in inflammable gas-air mixtures. I. Mixtures of air and one gas at ordinary temperature and pressure, ii, 48.
limits for the propagation of flame in inflammable gas-air mixtures. II. Mixtures of more than one gas and air, ii, 408.
limits for the propagation of flame in inflammable gas-air mixtures. III. Effect of temperature on the limits, ii, 553.
- White, E. C.**, and *R. C. Tolman*, initial rate of decomposition of nitrogen pentoxide, ii, 682.
- White, E. C.** See also *S. M. Rosenthal*.
- White, J. F.** See *J. Kendall*.
- White, H. L.**, comparison of the polarimeter and copper reduction values of dextrose solutions, ii, 1006.
- White, J. W.**, and *F. J. Holben*, chromic acid method for determining organic carbon, ii, 240.
- Whitehead, H. R.**, *J. Gordon*, and *A. Wormald*, "third component" or heat-stable factor of complement, i, 1202.
- Whitehorn, J. C.**, determination of lipid phosphorus in blood and plasma, i, 95.
- Whitford, E. L.**, decomposition of malic acid by sulphuric acid, ii, 559.
- Whitman, J. L.** See *S. Popov*.
- Whitman, W. G.**, and *D. S. Davis*, comparative absorption rates for various gases, ii, 106.
- Whitman, W. G.**, and *R. P. Russell*, acid corrosion of metals; effect of oxygen and velocity, ii, 689.

- Whitman, W. G., R. P. Russell, and G. H. B. Davies**, solubility of ferrous hydroxide and its effect on corrosion, ii, 505.
- Whitman, W. G.** See also **W. K. Lewis**.
- Whitmore, M. R.** See **F. T. Sisco**.
- Whitney, G. W.** See **E. D. Campbell**.
- Whitney, W. R.**, corrosion of iron [erosion], ii, 688.
- Whittaker, H.** See **W. J. Powell**, and **S. Sugden**.
- Whittier, E. O.**, lactose, i, 792.
- Whitworth, A. B.** See **I. M. Heilbron**.
- Wibaut, J. P.**, additive compound of triethylphosphine and carbon disulphide, i, 527.
- Wibaut, J. P., and A. Coppens**, *C*(α -pyridyl)-1-methylpyrrole. II., i, 75.
- Wibaut, J. P., J. J. Diekmann, and A. J. Rutgers**, addition of gaseous hydrogen chloride and hydrogen bromide to ethylene and propylene under the influence of catalysts, i, 494.
- Wichers, E.** See **W. D. Collins**.
- Wichert, E., and H. Donat**, decomposition of [2:4:6]-trinitrotoluene by the action of sunlight, i, 803.
- Wick, F. G., and J. M. Gleason**, effect of heat treatment upon the cathode luminescence of fluorite, ii, 262.
- Widder, W.**, elasticity modulus, temperature, and m. p., ii, 1043.
- Widdowson, W. P., and A. S. Russell**, period of mesothorium-2, ii, 463.
- Widell, H.** See **H. von Euler**.
- Widgoff, L.** See **E. R. Riegel**.
- Widmark, E. M. P., and O. Carlens**, influence of the intensity of lactation on the blood-sugar concentration of cows, i, 608.
- Widmark, E. M. P., and K. Jensen-Carlens**, effect of carbohydrate metabolism on the synthesis of hippuric acid, i, 331.
- Widmer, R.** See **P. Karrer**.
- Wieckowski, W.** See **K. Jablczyński**.
- Wiedbrauck, E.** See **R. Lorenz**.
- Wiederholt, W.** See **E. Liebreich**, and **E. Maass**.
- Wiegner, G.**, dispersion and base exchange (ion exchange), ii, 527.
- Wiegner, G., R. Galley, and H. Gessner**, retention of water in soils, ii, 36.
- Wieland, H.**, bile acids. XXII. Some unexplained results, i, 1065.
- Wieland, H.** [with **A. Baumann, C. Reisenegger, W. Scherer, J. Thiele, J. Will, H. Haussmann, and W. Frank**], fulminic acid. VII. Polymerisation of the fulminic acids; *isocyanilic* and *erythrocyanic* acids, i, 1048.
- Wieland, H.** [with **H. Haussmann, and H. Lövenskiöld**], mechanism of oxidation processes. IX., ii, 1171.
- Wieland, H.** [with **Walter Schneider, and E. Martz**], chemical nature of the resin acids of hops. I., i, 276.
- Wieland, H., and E. Dorrer**, Gattermann's synthesis of aldehydes in the case of enols, i, 779.
- Wieland, H., and R. Jacobi**, bile-acids. XXIII. Components of human and ox bile; constitution of anthropeoxycholic acid, i, 1488.
- Wieland, H., and H. Jung**, so-called "dibromonitroethylene" and the mechanism of the formation of bromo- and chloro-picric acids from polynitrophenols, i, 1374.
- Wieland, H., and E. Krause**, fluorene compounds, i, 902.
- Wieland, H., E. Martz, and H. Hoek**, chemical nature of the resin acids of hops. II., i, 1422.
- Wieland, H., and G. Reverey**, bile acids. XXI. Human bile, i, 181.
- Wieland, H., and C. Schöpf**, the yellow dye of the wing of the lemon butterfly (*Gonepteryx rhamni*), i, 1464.
- Wieland, H., C. Schöpf, and W. Hermesen** [with **O. Dragendorff**], *Lobelia* alkaloids. II., i, 1087.
- Wieland, H., and M. Kotake**, morphine alkaloids. III., i, 1090.
- Wieland, H., and M. Kotake**, morphine alkaloids. IV. Constitution of thebaine, i, 1448.
- Wien, M.**, dependence on temperature of the internal friction and electrical conductivity of aqueous solutions, ii, 931.
- Wien, W.**, recent researches in positive rays, ii, 921.
- Wiener, B. S.** See **A. W. Bowe**.
- Wierda, J., and H. C. Kremers**, concentration of praseodymium material and the preparation and properties of metallic praseodymium, ii, 993.
- Wieringa, H.** See **A. A. H. van den Bergh**.
- Wiesner, J.** See **M. Kohn**.
- Wiesner, S.**, specific heats, ii, 275, 757.
- Wiessmann, H.**, has silicic acid an influence on the morphological and anatomical structure of rye straw, where there is a deficiency of phosphatic food? i, 488.
- influence of light on the absorption of nutrients by young plants, i, 757.
- Wiessmann, H.** See also **O. Lemmermann**.
- Wiggers, F. A.**, laboratory apparatus, ii, 319.

- Wigglesworth, *V. B.*, ketosis. I. Relation between alkalosis and ketosis, i, 191.
- Wigglesworth, *V. B.*, ketosis. II. Oxidation of ketone bodies by the isolated liver of the rat, i, 191.
- Wightman, *E. P.* See *R. H. Lambert*.
- Wightman, *W. A.*, spatial structure of cycloparaffins. I. A new aspect of Mohr's theory and the isomerism of decahydronaphthalene, i, 894.
- Wigner, *E.* See *M. Póányi*.
- Wijs, (*Miss*) *H. J. de*, composition and stability of complex metal-ammonium ions, ii, 889.
- Wijs, (*Miss*) *H. J. de*. See also *F. E. C. Scheffer*.
- Wilbur, *O. C.* See *W. S. Calcott*.
- Wilke, *G.* See *P. Günther*.
- Wilcoxon, *F., A. E. McKinney*, and *A. W. Browne*, azido-carbon disulphide. II. Reaction of azido-carbon disulphide and of free thiocyanogen with hydrogen trinitride [azoisimide] in certain non-aqueous solvents, i, 1051.
- Wild, *G.* See *F. Kehrman*.
- Wilde, *H. D., jun.*, and *H. L. Lochte*, rapid determination of carbon in organic compounds, ii, 600.
- Wilhelm, *R. M.* See *J. L. Finck*.
- Wilke, *E.*, and *O. Kieniger*, activity coefficients, ii, 790.
- Wilke, *E.*, and *H. Kuhn*, oxidation of hydrogen by potassium permanganate, ii, 51.
- Wilke-Dörfurt, *E.*, and *M. Deker*, use of tap water as the outer liquid in dialysis, ii, 528.
- Wilken, *D.* See *F. Krauss*.
- Wilkendorf, *R.* See *M. Trénel*.
- Wilkins, *H.* See *S. Sugden*.
- Wilkinson, *J. A.*, and *W. Hoff*, adsorption of dyes by soils, i, 1227.
- Wilkinson, *J. A.* See also *G. N. Quam*.
- Wilkinson, *J. F.* See *F. Challenger*.
- Will, *J.* See *H. Wieland*.
- Willaman, *J. J., C. S. Wahlin*, and *A. Biester*, carbohydrates. II. Relative sweetness of invert-sugar, i, 1499.
- Willaman, *J. J.*, and *R. M. West*, composition of potato tubers, i, 1522.
- Willcox, *J. S.*, and *E. B. R. Prideaux*, dissociation constants of selenious acids, ii, 867.
- Willerding, *U.* See *A. Windaus*.
- Williams, *A. M.*, surface tension, surface energy, and the surface layer. I., ii, 386.
- Williams, *A. M.* See also *G. E. Collins*, and *A. R. Urquhart*.
- Williams, *E. C. P.*, chemical composition of blood during labour, i, 713.
- Williams, *E. G.* See *E. K. Rideal*.
- Williams, *E. J.*, effect of a magnetic field on the electrical resistance of liquid metals and alloys, ii, 753.
- electrical conductivity of some dilute amalgams, ii, 946.
- Williams, *H. A.* See *H. N. Holmes*.
- Williams, *J. R.*, and *G. U. Casey*, rapid determination of small amounts of dextrose in the urine in diabetes, i, 998.
- Williams, *J. W.*, and *F. Daniels*, specific heats of binary mixtures, ii, 765.
- Williams, *M. D., H. C. Fogg*, and *C. James*, solubilities of rare earth salts. I., ii, 504.
- Williams, *N. H.* See *A. W. Hull*.
- Williams, *R.* See *G. W. Robinson*.
- Williams, *R. R.*, ultra-violet light and the antineuritic vitamin, i, 751.
- Williams, *R. R.* See also *W. H. Eddy*.
- Williams, *W.* See *H. J. Page*.
- Williams-Gardner, *A.*, "cracking" of paraffins, i, 1229.
- Williamson, *R. V.*, and *J. H. Matthews*, rate of absorption and equilibrium of carbon dioxide in alkaline solutions, ii, 105.
- Williamson, *W. T. H.* See *W. O. Kermack*.
- Willmott, *S. G.*, apparatus for the catalytic dehydrogenation of alcohols, ii, 151.
- Willmott, *S. G.*, and *F. Wokes*, vitamin content of *Cortex limonis*, B.P., i, 1220.
- Wills, *G. O.* See *A. McKenzie*.
- Willstätter, *R.*, synthesis of "psicaine," i, 424.
- specific nature of lipases with respect to configuration, i, 1008.
- Willstätter, *R., F. Haurowitz*, and *F. Memmen*, pancreatic enzymes. IX. Specificity of lipases from different organs, i, 201.
- Willstätter, *R., H. Kraut*, and *E. Wenzel*, invertase. VII. Enzyme adsorption. II., i, 739.
- Willstätter, *R.*, and *H. Kumagawa*, taka-esterase; comparison with pancreatic lipase and hepatic esterase, i, 1213.
- Willstätter, *R., C. D. Lowry, jun.*, and *K. Schneider*, increase of invertase content of yeast, i, 1214.
- Willstätter, *R.*, and *H. Persiel*, pancreatic enzymes. XII. Determination of trypsin, i, 741.
- Willstätter, *R.*, and *O. T. Schmidt*, synthesis of new anthocyanidins, i, 54.
- Willstätter, *R.*, and *K. Schneider*, invertase. VIII., i, 739.

- Willstätter, R., K. Schneider, and E. Bamann**, invertase. X., i, 1359.
- Willstätter, R., F. Seitz, and J. von Braun**, hydrogenation of indole to perhydroindole [octahydroindole] and to *o*-ethylhexahydroaniline, i, 428.
- Willstätter, R., and E. Waldschmidt-Leitz**, pancreatic enzymes. XI. Enterokinase, i, 741.
- Willstätter, R., E. Waldschmidt-Leitz, and A. R. F. Hesse**, pancreatic enzymes. X. Adsorption behaviour of pancreatic amylase, i, 736.
- Willstätter, R., L. Zechmeister, and W. Kindler**, syntheses of pelargonidin and cyanidin, i, 54.
- Wilsdon, B. H.**, chemical affinity and electronic structure. I. The non-polar band, ii, 481.
chemical affinity and electronic structure. II. The polar link, ii, 481.
magnetic properties of atoms and molecules, ii, 641.
- Wilson, B. D.** See *T. L. Lyon*.
- Wilson, C. P.** See *J. A. Hall*.
- Wilson, D. W., W. L. Long, H. C. Thompson, and S. Thurlow**, changes in the composition of the urine after muscular exercise, i, 1115.
- Wilson, D. W.** See also *S. H. Liljestrand*.
- Wilson, F. J., and A. B. Crawford**, action of amines on semicarbazones. II., i, 318.
- Wilson, F. J., and E. C. Fickering**, derivatives of semioxamazide. III., i, 935.
- Wilson, F. J.** See also (*Miss*) *M. M. J. Sutherland*.
- Wilson, H. C.**, osmotic pressure of hæmoglobin; explanation of the effect of acetic acid, based on Donnan's theory of membrane equilibrium, ii, 292.
- Wilson, H. E. C.**, relation between sulphur and nitrogen metabolism, i, 729.
- Wilson, J. H.** See *H. H. Hodgson*.
- Wilson, K.** See *O. Collenberg*.
- Wilson, R. E.** See *W. H. Bahlke*.
- Wilson, R. V.** See *J. H. Walton*.
- Wiltshire, H. G.** See *H. B. Newham*.
- Wimmer, J.**, determination of methyl and ethyl alcohol, ii, 1006.
- Winchell, A. N.**, composition of melilite, ii, 152.
mica group, I. and II., ii, 592.
atoms and isomorphism, ii, 1122.
- Wind, F.**, oxidation of dihydroxyacetone and glyceraldehyde in phosphate solutions and acceleration of oxidation by heavy metals, ii, 1174.
- Windaus, A., and A. Bohne**, thermal decomposition of γ - and δ -ketonic acids and their esters, i, 552.
- Windaus, A., A. Bohne, and E. Schwarzkopf**, chenodeoxycholic acid, i, 405.
- Windaus, A., and J. Brunken**, sterol of scopolia root, i, 108.
sitosterol, i, 394.
stigmasterol, i, 394.
presence of gitenin in digitalis leaves, i, 873.
- Windaus, A., and W. Eickel**, synthesis of certain dihydrophenanthrene derivative-, i, 32.
- Windaus, A., and R. Hossfeld**, conversion of cholesterol into 4-hydroxy-hydrocholic acid, i, 1066.
- Windaus, A., H. Jensen, and A. Schramme**, synthesis of 9-methyl-phenanthrene, i, 19.
- Windaus, A., and O. Linsert**, gitenin and its degradation products, i, 1438.
- Windaus, A., and G. Schwarte**, gitoxin, a glucoside insoluble in chloroform from digitalis leaves, i, 1295.
- Windaus, A., and U. Willerdig**, digitonin and its degradation products, i, 1082.
- Windhausen, O.** See *R. Fricke*.
- Windheuser, C.** See *A. Morgen*.
- Wing, H. J.**, constant-level water baths, ii, 707.
- Winkler, H.** See *W. Steinkopf*.
- Winkler, L. W.**, gravimetric determination of the iodine-bromine number, ii, 446.
Nessler's reagent without potassium iodide, ii, 718.
preparation of bromine-acetic acid solution for determination of iodine-bromine number [of fats and oils], ii, 1009.
detection of sodium as oxalate, ii, 1095.
- Winter, F. A.** See *L. A. Congdon*.
- Winter, H.** See *H. Funk*.
- Winter, R. M.** See *T. Barratt*.
- Winterer, E. V.**, percolation of water through soils, i, 1527.
- Winterfeld, K.** See *J. Gadamer*.
- Winters, N. E.**, soil conditions which promote nitrogen fixation, i, 767.
- Winterstein, H., and E. Hirschberg**, formation of ammonia in the nervous system, i, 607.
glycogen and cerebroside metabolism of the central nervous system, i, 1495.
- Wintgen, R., and E. Meyer**, action of colloidal and semi-colloidal ferric hydroxide on aqueous gelatin solutions. I., ii, 524.

- Winther, C.**, oxidation of hydrogen iodide. II., ii, 56.
 relation between quantum sensitivity and intensity of radiation, ii, 1074.
 relation between velocity of photochemical reactions and dielectric constant, ii, 1082.
- Winzer, K.** See *H. Leuchs*.
- Wirzmüller, A.** See *W. Manchot*.
- Wismer, K. L.** See *F. B. Kenrick*.
- Wisniewski, F. J. von**, doublets of the alkali metals, ii, 77.
 possible structure of the hydrogen halides, ii, 361.
 s-term, ii, 449.
 arc spectrum of sodium, ii, 451.
 theory of the spark spectra of aluminium, ii, 451.
 absorption limits of *K*-series, ii, 457.
- Witkovsky.** See *Vitkovski*.
- Witmer, E. E.**, theory of the decay of α -ray luminescence, ii, 89.
- Witt, H.**, spectrometric methods of investigation of the infra-red, ii, 335.
 series in absorption spectrum of water vapour, ii, 352.
- Witte, C.** See *M. Bergmann*.
- Wittekindt, W.** See *K. von Auwers*.
- Wittig, G.**, action of ammonia on *o*-hydroxyphenyl-1:3-diketones, i, 279.
 simple apparatus for the determination of carbon dioxide, ii, 1094.
- Wittig, R.** See *H. Reihlen*.
- Wittka, F.** See *A. Grün*.
- Wittkower, E.** See *P. Rona*.
- Wittner, L.** See *E. Glaser*.
- Wlodek, J.**, spectrum of chlorophyll in the living leaf, ii, 258.
- Wöhler, L.**, and *P. Balz*, chlorides of ruthenium, ii, 424.
- Wöhler, L.**, *P. Balz*, and *L. Metz*, ruthenium oxides, ii, 149.
- Wöhlisch, E.**, clotting of blood and settling of blood-corpuscles as a problem of the physical chemistry of fibrinogen; does the stability of plasma proteins depend on their isoelectric points? i, 452.
 theory of the action of thrombin, i, 452.
 thrombin of Alexander Schmidt. X. Blood-clotting, i, 1486.
 theoretical stoichiometry of the intermolecular forces and the space occupied by the molecules of organic compounds. I.—II., ii, 269.
 theoretical stoichiometry of molecular volume, intermolecular attraction, viscosity, and ionic mobility of liquid organic compounds, ii, 277.
- Wöhlisch, E.**, measurements in series with the gas cell, ii, 301.
- Wöhlisch, E.**, and *H. Schriever*, isoelectric points of muscle proteins, i, 1488.
- Wöhlisch, E.**, and *E. Schütz*, human blood groups. II. Physical chemistry of isohæmagglutination, i, 717.
- Wölfel, E.** See *O. Fischer*.
- Wöllmer, W.**, bitter principles of hops, i, 690.
- Wohl, A.**, and *K. Freudenberg*, [nomenclature of steric series], i, 366.
- Wohl, K.**, chemical constants of chlorine, bromine, and iodine in the monatomic and diatomic states, ii, 98.
 atomic dissociation of chlorine and hydrogen. I. Dissociation of chlorine, ii, 395.
- Wohlgemuth, J.**, and *E. Klopstok*, enzymes of the skin. II. Distribution of enzymes in the skin; the presence of a nucleotidase, i, 203.
- Wohlgemuth, J.**, and *Y. Yamasaki*, enzymes of the skin, i, 472.
- Wokes, F.**, determination of small amounts of reducing sugars in urine, i, 1205.
- Wokes, F.** See also *S. G. Willimott*.
- Wolf, A.**, theory of electrical conduction in metals, ii, 942.
- Wolf, A.** See also *K. Freudenberg*.
- Wolf, C. G. L.** See *L. Lawn*, and *G. S. Lund*.
- Wolf, H.** See *F. L. Hahn*.
- Wolf, J.** See *P. Pfeiffer*.
- Wolf, K. L.** See *K. F. Herzfeld*, and *H. Schüler*.
- Wolf, L.** See *A. Hantzsch*.
- Wolfbauer, O.** See *A. Zinke*.
- Wolfes, O.** See *E. Merck*.
- Wolff, C. J. de**, determination of invert sugar, ii, 245.
- Wolff, J.** See *K. Jellinek*.
- Wolff, P.**, halogen-alkylated aromatic amines and a new pyrrolidine ring closure, i, 428.
- Wolfke, M.**, and *H. K. Onnes*, dielectric constants of liquid and solid hydrogen, ii, 630.
 dielectric constant of liquid helium, ii, 631.
- Wolkenberg, A.** See *L. Kofler*.
- Wolkoff, M. I.**, determination of sulphur in soil, i, 224.
- Wollheim, E.** See *K. Dresel*, and *F. Kraus*.
- Wollman, (Mme.) E.**, and *E. Wollman*, use of *Bacillus coli* in the detection of tryptophan and its application to the tubercle bacillus, i, 205.

- Wollman, E. See (*Mme.*) E. Wollman.
- Woltjer, H. R., magnetic researches. XXVII. Magnetic properties of some paramagnetic chlorides at low temperatures, ii, 1038.
- Woltjer, H. R., and H. K. Onnes, further experiments with liquid helium; magnetic researches. XXVIII. Magnetisation of anhydrous chromium, cobalt, and nickel chlorides at very low temperatures, ii, 1038.
- Woltjer, J., *jun.*, influence of radiation on ionisation equilibrium, ii, 343.
- Woo, Y. H., Compton effect and tertiary X-radiation, ii, 368.
- Woo, Y. H. See also A. H. Compton.
- Wood, A. E., preparation of alkyl sulphides, i, 1034.
- Wood, A. E., C. Sheely, and A. W. Trusty, corrosion effect of naphtha solutions of sulphur and sulphur compounds, ii, 980.
- Wood, C. E., and M. A. Comley, rotatory dispersion of certain normal alkyl hexahydromandelates, ii, 264.
- Wood, C. E., and H. S. Lilley, transformation of mandelonitrile to mandelonitrile, i, 400.
- Wood, F. C. See H. F. Coward.
- Wood, J. G., selective absorption of chlorine ions, and the absorption of water by the leaves in the genus *Atriplex*, i, 1024.
- Wood, J. K., and A. Wooller, behaviour of hydrated aluminium oxide towards dyes, ii, 285.
- Wood, M. W. See A. Biester.
- Wood, R. W., controlled orbital transfers of electrons in optically excited mercury atoms, ii, 3.
- structure of the mercury line, 2536 Å., ii, 339.
- fine structure, absorption, and Zeeman effect of the 2536 mercury line, ii, 1015.
- optical excitation of the mercury spectrum, with controlled orbital transfers of electrons, ii, 1015.
- Woodhouse, D. L. See E. A. Cooper.
- Woodman, D., effects of parathyroid feeding on calcium and creatine metabolism, i, 1210.
- Woodman, H. E., and F. L. Engledon, chemical study of the development of the wheat grain, i, 217.
- Woodman, H. E., and J. Hammond, mucous secretion of the cervix of the cow, i, 721.
- Woodridge, W. R. See J. H. Quastel.
- Wooller, A. See J. K. Wood.
- Wooster, W. A. See C. D. Ellis.
- Work, P., sodium nitrate in the nutrition of the tomato, i, 1366.
- Worley, F. P. See R. W. Harman.
- Wormall, A., constituents of the sap of the vine (*Vitis vinifera*, L.), i, 215.
- Wormall, A. See also H. S. Raper, and H. R. Whitehead.
- Wormell, R. L. See W. Wardlaw.
- Worrall, D. E., addition of ethyl sodio-acetoacetate to substituted aromatic mustard oils [thiocarbimides], i, 244.
- action of hydroxylamine and of hydrazine on the aryl monothioamides of ethyl acetylmalonate. II., i, 308.
- Worthing, A. G., temperature scale and m. p. of molybdenum, ii, 759.
- Worthing, A. G., and R. Rudy, line spectra of tungsten and nickel in the afterglow of a discharge through a mixture of nitrogen and argon, ii, 1102.
- Wosnessensky. See Vosnessenski.
- Wrede, F., and E. Strack, pyocyanine, the blue pigment of *Bacillus pyocyaneus*. I. and II., i, 174, 844.
- Wrede, F., and W. Zimmermann, synthesis of disaccharides from sugar derivatives containing sulphur and selenium and their oxidation products, i, 1384.
- Wrenshall, R., and A. L. Dean, leprosy. XXXVII. Fractionation of chaulmoogra oil. II. Evidence of the existence of a highly unsaturated optically active acid, i, 1414.
- Wrenshall, R. See also A. L. Dean.
- Wright, C. H. See O. Maass.
- Wright, F. E. See J. Parry.
- Wright, R., selective solvent action. IV. Cryoscopy in mixed solvents, ii, 1144.
- Wright, S. See F. Dickens.
- Wright, W. M. See E. K. Rideal.
- Wróbel, A., polarimetric determination of inactive substances; potassium, ii, 240.
- Wu, D. Y. See H. Wu.
- Wu, H., modification of Duboscq-Pellin colorimeter for biocolorimetric work, ii, 899.
- Wu, H., and D. Y. Wu, heat denaturation of proteins, i, 1110.
- Wüst, J., and E. Lange, heat of solution of alkali halides, ii, 38.
- heats of solution and dilution of salts. I., ii, 791, 976.
- Wulf, O. R., possible limits for the heat of dissociation of oxygen, ii, 848.

- Wunschendorff, H.**, removal of proteins from body fluids with colloidal ferric hydroxide; indirect determination of proteins in cerebro-spinal fluid, etc., i, 1346.
- Wunstorff, O.** See **F. Boedecker**.
- Wurmser, R.**, activity of various radiations in photosynthesis, ii, 1082.
- Wurmser, R.** See also **E. Auel**, and **C. Fromageot**.
- Wustrow, W.** See **A. Stock**.
- Wuyts, H.**, preparation of ethers, i, 501.
- Wyatt, K. S.**, supersaturation of gases in liquids, ii, 504.
- Wyatt, K. S.** See also **F. B. Kenrick**.
- Wyck, H. B. van** See **V. J. Harding**.
- Wyckoff, R. W. G.**, orthorhombic space group criteria and their application to aragonite, ii, 484.
crystal structure of the high temperature form of cristobalite [SiO_2], ii, 638.
crystal structure of silver phosphate and silver arsenate, ii, 1037.
- Wyckoff, R. W. G., F. L. Hunt, and H. E. Merwin**, X-ray diffraction effects from solid fatty acids, ii, 1129.
- Wyckoff, R. W. G., and H. E. Merwin**, crystal structure of dolomite, ii, 94.
space group of barite (BaSO_4), ii, 485.
space group of diopside, ii, 485.
- Wyckoff, R. W. G., H. E. Merwin, and H. S. Washington**, X-ray diffraction measurements on the pyroxenes, ii, 1126.
- Wyckoff, R. W. G., and G. W. Morey**, X-ray diffraction measurements on some soda-lime-silica glasses, ii, 1146.
- Wyckoff, R. W. G.** See also **R. E. Gibson**.
- Wyss, F.**, biochemical determination of insulin, i, 1220.
- Y.**
- Yabusoe, M.**, iron and blood pigment determinations in normal tissues and in tumours, i, 724.
- Yaitschnikov, I. S.**, hydrolysis of peptones, albumoses, and proteins with hydrochloric acid. I., i, 320.
- Yajnik, N. A., and B. Ilahi**, emulsifying power of sodium stearate and sodium palmitate, ii, 968.
- Yajnik, N. A., M. P. Jain, and D. Nath**, influence of electrolytes on the solubilities of some organic acids, ii, 1147.
- Yajnik, N. A., and K. S. Malik**, viscosities of aqueous solutions of pure soaps and their variations with temperature, ii, 779.
- Yakubchik, A. O.** See **S. V. Lebedev**.
- Yamada, M.**, crystal form and the crystal lattice, ii, 94.
- Yamada, N.**, long-range particles from polonium, ii, 255.
long-range particles emitted by the active deposits of radium, ii, 834.
- Yamada, N.** See also (*Mme.*) **I. Curie**.
- Yamada, S.** See **S. Komatsu**.
- Yamaga, N.**, equilibrium of gases in the reaction of explosives, ii, 294.
- Yamaguchi, S.**, Beckmann's rearrangement. XIII. Catalytic action of reduced copper on benzaldoximes, i, 1278.
- Yamamoto, R.**, insecticidal principle of *Chrysanthemum cinerariæfolium*, i, 1522.
- Yamasaki, Y.** See **J. Wohlgemuth**.
- Yamauchi, M.**, lipoids of the ovarian follicles in human beings and cattle, i, 457.
- Yannakis, N. C.**, total vapour pressure of cuprous or lithium chloride solutions in hydrochloric acid, ii, 401.
partial pressures of aqueous solutions of hydrochloric acid at 50°, ii, 514.
- Yant, W. P., and F. E. Frey**, apparatus for preparing vapour-air mixtures of constant composition, ii, 897.
- Yardley, (Miss) K.**, X-ray examination of calcium formate, ii, 430.
X-ray examination of iodosuccinimide, ii, 746.
X-ray methods of supplementing and correcting crystallographic data, ii, 1033.
X-ray examination of maleic and fumaric acids, ii, 1126.
- Yarsley, V. E.** See **G. T. Morgan**.
- Yasuda, K.**, preparation of pure calcium cyanamide, i, 377.
- Yates, W. W.** See **H. G. Miller**.
- Yathiraja, A. R., and J. J. Sudborough**, hydrolysis of amides of Δ^{α} -unsaturated acids and of their saturated analogues, i, 1134.
- Yensen, T. D.**, magnetic properties of the 50% iron-nickel alloy, ii, 372.
- Yoda, G.** See **A. G. Perkin**.

- Yoe, J. H.**, adsorption of arsenious acid by hydrated aluminium oxide, ii, 107.
perchloric acid as an analytical reagent, ii, 902.
- Yokoyama, T.** See *R. W. Seuffert*.
- Yonge, C. M.**, hydrogen-ion concentration in the gut of certain lamelli-branchs and gastropods, i, 1489.
- Yoshikawa, K.** See *B. Kubota*.
- Yoshimatsu, N.** See *Z. Matsuoka*.
- Yoshine, S.**, effect of ultra-violet light on protein metabolism, i, 1356.
- Young, A. F. A.** See *O. W. Richardson*.
- Young, J.**, Thomson effect in copper, iron, and carbon steels, ii, 490.
- Young, J. F. T.** See *J. C. McLennan*.
- Young, R. C.** See *J. F. Norris*.
- Youngburg, G. E.**, and *G. W. Pucher*, organic phosphorus of the urine, i, 98.
- Youtz, M. A.**, rapid preparation of cetyl alcohol, i, 1125.
- Yovanovitch, A.**, micro-determination of ammonia in urine, i, 1114.
determination of ammonia and ammonium salts in urine, i, 1204.
- Yovanovitch, A.** See also *M. Nicloux*.
- Yovanovitch, D. K.**, and *J. D'Espine*, magnetic spectrum of β -rays of high velocity, from mesothorium II, ii, 85.
magnetic spectrum of the high speed β -rays of thorium-*B+C*, ii, 176.
- Yovanovitch, D. K.** See also (*Mme.*) *M. Curie*.
- Yovitchitch, M. Z.**, deficit of the condensed substances obtained by the action of the electric discharge, ii, 406.
- Yukitomo, T.** See *S. Komatsu*.
- Yumikura, S.**, osmosis in aqueous gels with and without addition of lipoids, i, 735.
osmosis of certain anaesthetics in aqueous and lipid-containing gels, i, 735.
osmosis of certain acids in a gelatin gel, i, 735.
- Yumikura, S.** See also *J. Traube*.
- Yung, C. C.** See *R. N. Pease*.
- Yvon, syntheses** by means of the sodium and magnesium derivatives of propine, i, 514.
- Z.**
- Zabrodin, A.** See *S. Nametkin*.
- Zacharias, P. D.**, metachemistry and metachemical processes (a nomenclature and system of colloids), ii, 196.
- Zachrisson, C. G.**, proteolytic enzymes of the liver, i, 335.
- Zadek, F.** See *G. Schroeter*.
- Zahn, C. T.** See *K. T. Compton*, and *C. P. Smith*.
- Zahn, H.**, dielectric constant of water in [the presence of] strong electrolytes, ii, 263.
- Zahn, H.** See also *H. Hellmann*.
- Zajdel, R.** See *S. Sierakowski*.
- Zakarias, L.**, colloid filtration, ii, 862.
- Zakowski, J.** See *K. Jellinek*.
- Zaleski, J.**, and *K. Lindenfeld*, esterification of hæmin, i, 88.
- Zambonini, F.**, and *V. Caglioti*, double sulphates of rare earth and alkali metals. II. Neodymium and potassium, ii, 222, 315.
sulphates of neodymium and thallous thallium, ii, 1185.
- Zambonini, F.**, and *G. Carobbi*, isomorphous relations between beryllium and magnesium compounds, ii, 144.
double sulphates of rare earth and alkali metals. I. Lanthanum and potassium, ii, 222.
isomorphism between tervalent thallium and rare earth metals, ii, 272.
lanthanum thallous sulphates, ii, 579.
chromates of the metals of the cerium group, ii, 700.
presence of the compound $K_2Mn_2(SO_4)_3$ among the products of activity on Vesuvius, ii, 898.
- Zambonini, F.**, *O. de Fiore*, and *G. Carobbi*, lead sulphobismuthite of volcanic origin, ii, 709.
- Zambonini, F.**, and *R. G. Levi*, isomorphism of the molybdates of the rare earths with those of calcium, strontium, barium, and lead, ii, 1133.
- Zamparo, A.**, variations in physiological action of morphine derivatives with diverse substituent groups, i, 1116.
differentiation of the naphthols, and condensation product of α -naphthol with formaldehyde, ii, 444.
identification of the alkyl derivatives of barbituric acid, ii, 907.
- Zanda, G. B.**, significance of copper in the animal organism, i, 719.
- Zanetti, J. E.**, esters of furfuryl alcohol, i, 567.
furfuryl furfuroate, i, 953.
- Zechmeister, L.** See *N. Bjerrum*, and *R. Willstätter*.
- Zechner, K.** See *R. Kremann*.
- Zee, H. van der.** See *S. C. Bokhorst*.
- Zeeman, P.**, radiating atoms in magnetic fields, ii, 614.
- Zeeman, P.** See also *T. L. de Bruin*, and *S. Goudsmit*.
- Zeh, H. P.** See *H. Freundlich*.

- Zeilinger, F.**, theory of Brownian movement, ii, 389.
- Zeisberg, F. C.**, partial vapour pressures of aqueous hydrogen chloride solutions, ii, 401.
- Zelinski, N. D.**, irreversible catalysis of unsaturated cyclic hydrocarbons. II., i, 122.
irreversible catalysis of unsaturated cyclic hydrocarbons. III. Contact transformation of limonene, i, 146.
mechanism of catalytic hydrogenation and dehydrogenation, i, 237.
irreversible catalysis of unsaturated cyclic hydrocarbons. IV. Contact transformation of α -pinene: dihydropinene, i, 821.
- Zelinski, N. D.** [with **M. Gavedovskaja**], isomerisation of decahydronaphthalene, i, 123.
- Zelinski, N. D.**, and **P. Borissov**, octahydroindene and its behaviour towards catalytic dehydrogenation, i, 122.
- Zelinski, N. D.**, and **E. Rjachina**, 1:3-dimethylcyclopentane-3-carboxylic acid, i, 28.
conversion of naphthenic acids into ketones with the aid of catalysts, i, 39.
- Zelinski, N. D.**, and **V. A. Smirnov**, action of aluminium chloride on heptanaphthene, i, 1125.
- Zelinski, N. D.**, and **M. B. Turova-Pollak**, noble metals as catalysts of hydrogenation and dehydrogenation, i, 1052.
isomerisation of decahydronaphthalene; transformation of *cis*- into *trans*-decahydronaphthalene and dehydrogenation of decahydronaphthalene, i, 1053.
- Zellner, J.**, chemical components of native medicinal plants. II., i, 763.
chemistry of heterotrophic phanerogams. V., i, 1025.
- Zemčuzny, S. F.** See **N. S. Kurnakov**.
- Zemiattschenski, P. A.**, hydrolysis of mica, ii, 814.
- Zemisch, E.** See **W. Steinkopf**.
- Zemplén, G.**, and **G. Braun**, ethers of salicin, i, 1081.
- Zepter, H.** See **W. Manchot**.
- Zerban, F. W.**, specific rotation of invert-sugar and the Clerget divisor, ii, 479.
- Zerbe, C.** See **R. Anschütz**.
- Zervas, L.** See **M. Bergmann**.
- Zetzsche, F.**, and **O. Arnd**, influence of phosphorus oxychloride on the catalytic reduction of acid chlorides, i, 1415.
- Zetzsche, F., H. Silbermann,** and **G. Virli**, formation of metallic phenoxides by metals, i, 1411.
- Zeynek, R.**, halogen compounds of tyrosine, i, 920.
- Ziegler, K.**, polyarylated vinylcarbinols and their derivatives. V. Anomalous etherification in the triphenylallyl series, i, 395.
- Ziegler, K., H. Grabbe,** and **F. Ulrich**, polyarylated vinylcarbinols and their derivatives. IV. Course of the dimerisation of triphenylallene, i, 131.
- Ziegler, K., K. Richter,** and **B. Schnell**, polyaryl-substituted vinylcarbinols and their derivatives. VI. True derivatives of diphenylstyrylmethane, i, 915.
- Ziegler, O.** See **K. Brass**.
- Zilva, S. S.**, influence of ultra-violet radiations on accessory food factors, i, 485.
antiscorbutic fraction of lemon juice, III., i, 1220.
- Zilva, S. S.** See also **E. H. Lepper**.
- Zimmermann, M.** See **G. Embden**.
- Zimmermann, W.** See **F. Wrede**.
- Zinke, A., K. Funke,** and **A. Pongratz**, perylene and its derivatives. IX., i, 819.
- Zinke, A.**, and **K. Funke** [with **J. Matscher, O. Wolfbauer,** and **N. Lorber**], perylene and its derivatives. X., i, 1436.
- Zinke, A.**, and **F. Hanselmayer**, perylene and its derivatives. VI., i, 564.
- Zinke, A., F. Linner,** and **O. Wolfbauer**, perylene and its derivatives. VII., i, 383.
- Zinke, A., A. Pongratz,** and **K. Funke**, perylene and its derivatives. VIII., i, 384.
- Zinsser, H.** See **J. Howard Mueller**.
- Zintl, E.**, and **A. Rauch**, theory of constitutive colour, ii, 182.
electrometric titration of bismuth alone and together with lead, ii, 442.
standardisation of titanous chloride solutions, and potentiometric titration of copper, ii, 1003.
potentiometric titration of bismuth in presence of other metals, ii, 1004.
potentiometric titration of gold, ii, 1005.
- Zintl, E.** See also **O. Hönigschmid**.
- Zipf, K.** See **E. Bissinger**.
- Zobel, F.** See **J. von Braun**.
- Zocher, H.**, spontaneous structure-formation in sols (new type of anisotropic liquid media), ii, 966.

- Zoehar, H., and K. Coper**, production of optical activity in silver by circularly polarised light, ii, 935.
- Zoehar, H.** See also **H. Freundlich**.
- Zondek, H., and H. Ucko**, two-phase action of hormones; antagonistic endocrine action, i, 1513.
- Zondek, S. G.** See **F. Kraus**.
- Zschiegner, H. E.**, determination of palladium, ii, 443.
- Zsigmondy, R., and E. Hückel**, reduction velocity and growth of particles in the preparation of colloidal gold solutions, ii, 775.
- Zsigmondy, R., and E. Joël**, protection and precipitation of gold by proteins, ii, 35.
- Zubov, P. W., and W. Swientoslawski**, heats of combustion of three oxides [α -propylene oxide, α -trimethylethylene oxide, and $\gamma\delta$ -hexylene oxide], ii, 364.
- Zumstein, F.** See **R. Kuhn**.
- Zumstein, O.** See **K. Lehmstedt**.
- Zumstein, R. V.**, absorption spectra of copper, silver, and gold vapours in the ultra-violet, ii, 453.
- tungsten X-ray emission and absorption spectra, ii, 725.
- absorption spectrum of lead vapour in the ultra-violet, ii, 914.
- Zurbruggen, G.** See **H. de Diesbach**.
- Zuskine, N.**, preparation of nitroxyl chloride and bromide and their action on Grignard's reagent, ii, 587.
- Zwaardemaker, H., T. P. Feenstra, and M. E. J. M. Steyns**, emanation and calcium, i, 193.
- Zweiglówna, I.**, equilibrium in solutions of the isomorphous salts, $(\text{NH}_4)_2\text{SO}_4, \text{MgSO}_4, 6\text{H}_2\text{O}$, and $(\text{NH}_4)_2\text{SO}_4, \text{FeSO}_4, 6\text{H}_2\text{O}$, ii, 189.
- Zwicky, F.**, theory of the specific heats of electrolytes, ii, 1138.
- Zwikker, C.**, characteristics of tungsten and the candle power of a black body, ii, 1041.
- Zyl, G. van.** See **A. L. Ferguson**.